



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

May 29, 2024

Patricia A. O'Reilly, PhD
Manager, Federal Registrations
Makhteshim Agan of North America, Inc. (d/b/a ADAMA)
8601 Six Forks Road, Building 1, Suite 100
Raleigh, NC 27615

Subject: Notification per PRN 98-10 – updating address and state restrictions in DFU
Product Name: Fluensulfone 480 EC CA
EPA Registration Number: 66222-290
Application Date: 8/28/23
Case Number: 606462

Dear Patricia A. O'Reilly,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "NOTIFICATION" and placed in our records.

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 (FIFRA) 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) lists 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.

If you have any questions, please contact Elizabeth Danon at 202-566-0623 or at danon.elizabeth@epa.gov.

Melissa Bridges, Product Manager 07

A handwritten signature in black ink, appearing to read 'Melissa Bridges', with a stylized flourish at the end.

Invertebrate and Vertebrate Branch 3
Registration Division (7505T)
Office of Pesticide Programs

FLUENSULFONE 480EC CA

Nematicide

[Alternate Brand Name: NIMITZ® CA]

NOTIFICATION

66222-290

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/29/2024

For control and suppression of nematodes in:

Brassica (Cole) Leafy Vegetables (Crop Group 5); Citrus Fruit Group (Crop Group 10-10); Cucurbit Vegetables (Crop Group 9); Fruiting Vegetables (Crop Group 8-10); Leafy Vegetables, Except Brassica Vegetables (Crop Group 4); Low Growing Berry (Subgroup 13-07G); Pome Fruit (Crop Group 11-10); Small Fruit Vine Climbing (Crop Subgroup 13-07D); Stone Fruit (Crop Group 12-12); Sugarcane; Tree Nuts (Crop Group 14-12); Root Vegetables (Except Sugar Beet) Subgroup 1B Tuberous and Corm Vegetables (Subgroup 1C); Tobacco.

ACTIVE INGREDIENT:

% BY WT.

Fluensulfone: 5-chloro-2 (3,4,4-trifluoro-but-3-ene-1-sulfonyl)-thiazole 40.0%

OTHER INGREDIENTS*: 60.0%

TOTAL: 100.0%

Contains 4 pounds fluensulfone per gallon (0.5 pounds per pint) in an Emulsifiable Concentrate formulation.

*Contains petroleum distillates

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

Manufactured for:

Makhteshim Agan of North America, Inc. (d/b/a ADAMA)

8601 Six Forks Road, Suite 300

Raleigh, NC 27615

EPA Reg. No. 66222-290

EPA Est. No. _____

NET CONTENTS: ____ GAL(S)

How can we help? 1-866-406-6262

FIRST AID	
IF SWALLOWED:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to by a poison control center or doctor. Do not give any liquid to the person. 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 to 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 to 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.

	<p>If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.</p> <p>Call a poison control center or doctor for further treatment advice.</p>
<p>Note to Physician: Contains petroleum distillate. Vomiting may cause aspiration pneumonia. Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-250-9291 for emergency medical treatment information.</p>	

In case of spills, fire, leaks or accidents call 1-800-535-5053

Optional Text for Label Booklet: [For additional precautionary, handling and use statements, see inside of this booklet.]

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

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

All mixers and loaders must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, barrier laminate or Viton >14 mils
- Shoes plus socks
- Face shield over a NIOSH-approved respirator with any R or P filter with NIOSH approval number prefix TC-84A.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, barrier laminate or Viton ≥ 14 mils
- Shoes plus socks
- A NIOSH-approved respirator with any R or P filter with NIOSH approval number prefix TC-84A .

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to estuarine and marine invertebrates. For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), 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.

Exception: If the product is applied by drip or trickle irrigation, or broadcast or banded and covered with plastic mulch, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

USE RESTRICTIONS

- For use only on crops listed on this label.
- Do not apply more than one application to annual crops, and no more than 3.5 lbs of fluensulfone (112 fl. oz. of this product) per acre, per calendar year.
- For all methods of application in California, a planted area of 80 acres per individual mixer/loader per day is the maximum allowed.

RESISTANCE MANAGEMENT

Although resistance in nematode populations has not been proven, repeated exclusive use of any product may lead to a reduction in control due to enhanced biodegradation or other causes. Rotation with nematicides with a different mode of action is suggested. Contact your Cooperative Extension specialist, certified crop advisor and or product manufacturer for additional resistant management recommendations.

FLUENSULFONE 480EC CA should be used as part of an Integrated Pest Management (IPM) program to control nematodes. IPM programs using cultural practices, sanitation, planting of nematode resistant varieties, scouting or other detection methods, proper pest identification and rotation of nematicides with different modes of action will help prevent economic nematode damage.

PRODUCT INFORMATION

FLUENSULFONE 480EC CA can be used to suppress **nematodes** and control the following nematodes: Root-knot (*Meloidogyne* spp.), Potato cyst[*] (*Globodera* spp.), Needle[*] (*Longidorus africanus*), Lance [*] (*Hoplolaimus* spp.), Sting[*] (*Belonolaimus* spp.), stubby root[*] (*Trichodorus* and *Paratrichodorus* spp.), and Lesion (*Pratylenchus* spp.). A successful treatment with **FLUENSULFONE 480EC CA** will not eradicate nematode populations. It is recommended to apply when the target nematodes are active (at least 43 °F soil temperature for Columbia Root-knot nematode (*M. chitwoodi*) and at least 55 °F for more common Root-knot nematodes).

[*Not for use in California.]

Applications must be broadcast incorporated, banded and incorporated, or by chemigation. Make soil applications only in accordance with directions and conditions of use described in this label. Treated areas can be covered with plastic or left uncovered according to planting practices.

Annual crops. Apply **FLUENSULFONE 480EC CA** at a rate of 3.5 to 7 pints, (56 to 112 fl. oz.) per acre. Do not apply more than one application per crop, and no more than 3.5 lbs of fluensulfone (112 fl. oz. of this product) per acre, per calendar year. For BRASSICA (COLE) LEAFY VEGETABLES (Crop Group 5), Turnip and Japanese white radish (daikon), make applications 30-35 days prior to planting. For all other annual crops listed, apply 7 to 0-140 days before transplanting or seeding.

Perennial crops (other than Sugarcane). Apply **FLUENSULFONE 480EC CA** at a rate of 3.5 to 7 pints, (56 to 112 fl. oz.) per acre. **FLUENSULFONE 480EC CA** application may be split between spring and fall. Do not apply more than two applications per crop, and no more than 3.5 lb fluensulfone per acre, per calendar year.

Sugarcane: Apply at planting and/or at ratoon.

The use of **FLUENSULFONE 480EC CA** controls nematodes only when they are present and active at the time of application. **FLUENSULFONE 480EC CA** will not control nematodes introduced into the soil after the active ingredient has dissipated, does not provide season long control, and does not guarantee nematode free crops at harvest. Effectiveness will be reduced if used in muck or high clay content soils.

Tank Mixing: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Compatibility:

Do not apply **FLUENSULFONE 480EC CA** with any other product before testing for physical and chemical compatibility of the mixture. To determine compatibility, pour the required proportions of the product(s) into a suitable container. After mixing, wait for 30 minutes and check to see if the product remains mixed. If the product remains mixed, it is considered physically compatible. It is the pesticide user's responsibility to ensure that all products in a tank mix are registered for the intended use. Users must follow the most restrictive directions and precautionary language of the products of the mixture (for example, first aid from one product, spray drift management from another).

Use mixed product as soon as possible following mixing and preferably within the same day of mixing.

USE INFORMATION

Use **FLUENSULFONE 480EC CA** in accordance with all applicable label directions.

FLUENSULFONE 480EC CA can be applied in any season when soil conditions permit and nematodes are active. Uniform application and incorporation to moist soils is essential. Apply **FLUENSULFONE 480EC CA** to a moist, well-prepared seedbed. Ensure soils have sufficient moisture to support plant growth. If soils are not free of clods, debris and plant residues thoroughly incorporate them into the soil to prevent interference with application or control. Lack of effectiveness, crop injury or illegal pesticide residues in the crop can result from non-uniform distribution of product. Consult your equipment manufacturer, State Extension specialist or ADAMA representative for calibration or application questions.

MIXING, LOADING AND HANDLING INSTRUCTIONS

Add the required amount of **FLUENSULFONE 480EC CA** to the water in the spray tank or injection pre-tank and mix well. Continue agitation at frequent intervals during application. If **FLUENSULFONE 480EC CA** is to be mixed with other products or fertilizers, test the physical compatibility of the mixture as described above prior to use.

NOTE: Thoroughly clean application equipment prior to use and before using for application of other pesticides.

SOIL MOISTURE MANAGEMENT

Soil moisture management can have an influence on product efficacy. Ensure soil moisture is greater than or equal to 50% of soil capacity. It is recommended to irrigate with 0.5 to 1 inch of water 3-5 days after application. If applied by drip irrigation, make sure that the soil is pre-wetted to allow the product to move uniformly from shoulder to shoulder and throughout the bed as it is being drip irrigated.

For optimal performance, all applications must be incorporated by water and/or mechanical means to a depth of 4-8 inches. Resume a normal irrigation schedule immediately after planting. Excessive moisture immediately after application may cause this product to move past the targeted zone.

When no irrigation is available mechanically incorporate **FLUENSULFONE 480EC CA**.

BROADCAST APPLICATION

Apply at labeled rate for each crop using conventional application equipment 7–10 days before planting and 7 - 10 days before seeding. For Brassica (cole) leafy vegetables, Japanese mustard spinach, hot herb mustard spinach, Japanese white radish (daikon), and turnip, apply at 30-35 days prior to transplanting or seeding. Prepare the spray mix by adding the product to the spray tank with a minimum of 20 gallons of water per acre to obtain a uniform application. Maintain sufficient agitation during mixing and application to ensure a homogeneous spray solution. Uniformly apply the spray mix over the field and mechanically incorporate to a depth of 4-8 inches with incorporation equipment to ensure even distribution. It is recommended to irrigate 3-5 days after application with the quantity of water recommended in Chart 1. Following planting, resume normal irrigation practices.

Chart 1: Water Recommendations

Water Recommendations for the South and Southeast						
Application type	Irrigation type	Suggested application water volume	Soil % clay	Supplemental Irrigation #1	Supplemental Irrigation #2	Supplemental Irrigation #3
				3 or more days after application	Additional 3 or more days after supplemental irrigation #1	Additional 3 or more days after supplemental irrigation #2
Soil application (Pre-plant incorporated)	Overhead sprinkler, center-pivot, lateral move, and solid set	Min. 20 GPA	<5%	0.50"(acre inch)		
			5%-15%		0.50"	
			>15%		0.50"	
	Surface drip	Min. 20 GPA	<5%	5,000 gal/0.35"		
			5%-15%	3,000 gal/0.2"	3,000 gal/0.2"	
			>15%	3,500 gal/0.25"	3,000 gal/0.25"	
	Buried drip** (Typically 6 to 14")	Min. 20 GPA	<5%	9,000 gal/0.7"		
			5%-15%		4,500 gal/0.33"	
			>15%		4,500 gal/0.33"	
Drip application	Surface drip*	4K to 5K gal	<5%	4,000 gal/0.66"		
			5%-15%		4,000 gal	
			>15%		3,500 gal	3,500 gal
Buried drip	Buried drip**	4K to 5K gal	<5%	4,000 gal/0.66"		
			5%-15%	9,000 gal/0.7"	9,000 gal	
			>15%	9,000 gal/0.7"	4,000 gal	4,500 gal/0.33"

* Planting up to 8 inches from dripline

** Planting up to 4 inches from dripline

Water Recommendations for California						
Application type	Irrigation type	Suggested Application water volume	Soil % Clay	Water 3 days after application*	Water 5 days after application*	Water 7+ days after application
Pre-Plant Incorporated (PPI)	Overhead sprinkler	Min. 20 GPA	<5%	0.50" 13,577gal		
		"	5%-15%	0.50" 13,577gal	0.50" 13,577 gal	
		"	>15%	0.50" 13,577gal	0.50" 13,577 gal	
PPI	Surface drip**	Min. 20 GPA	<5%	0.35" 9,504 gal		
		"	5%-15%	0.20" 5,430 gal	0.20" 5,430 gal	
		"	>15%	0.25" 6,788 gal	0.25" 6,788 gal	
PPI	Buried drip (typically 6" – 14")***	Min. 20 GPA	<5%	0.70" 19,008 gal		
		"	5%-15%	0.66" 17,921 gal	0.33" 8,960 gal	
		"	>15%	0.66" 17,921 gal	0.33" 8,960 gal	
Drip Application	Surface drip**	4,000 GPA	<5%	0.30" 8,146 gal		
		"	5%-15%	0.30" 8,146 gal	0.30" 8,146	
		"	>15%	0.30" 8146 gal	0.25" 6,788 gal	
Buried drip	Buried drip***	4,000 GPA	<5%	0.40" 10,861 gal		
		"	5%-15%	0.66" 17,921 gal	0.66" 17,921 gal	
		"	>15%	0.66" 17,921 gal	0.33" 8,960 gal	0.33" 8,960 gal
* Planting up to 8 inches from dripline						
** Planting up to 4 inches from dripline						

Chart 2: Application Rate for Broadcast Application

Pints per acre (Varies by crop)	Ounces of FLUENSULFONE 480EC CA per planted acre	Pounds active ingredient per acre
3.5	56 fl. oz.	1.75 lbs. a.i./A
5	80 fl. oz.	2.5 lbs. a.i./A
7	112 fl. oz.	3.5 lbs. a.i./A

Drift Management: Do not make application at a boom height greater than 20 inches above the surface of the soil, and use nozzles that produce coarse droplets (>300 microns) to reduce evaporation and drift. Do not apply when the wind speed favors drift beyond the areas intended for treatment.

BAND APPLICATION

Chart 3 may be used to determine the amount of product required based on bed width, length and use rate. Apply the spray mixture across the band and uniformly incorporate to 6-8 inches avoiding dilution outside the band, 7-10 days before planting. It is recommended to irrigate after application with the timing and water quantity

recommended in Chart 1. Following planting, resume normal irrigation practices. Rates are not to be concentrated in the row instead, they are to be applied based on the treated acre (the acre within the band).

Drift Management: Do not make application at a boom height greater than 20 inches above the surface of the soil, and use nozzles that produce coarse droplets (>300 microns) to reduce evaporation and drift.

Chart 3: Application Rate Calculation for Band and Drip Application

Bed Width (Inches)	Linear feet of bed in one treated acre	Ounces of FLUENSULFONE 480EC CA per 1000 linear feet of row		
		56 fl. oz./Treated Acre (3.5 pints)	80 fl. oz./ Treated Acre (5 pints)	112 fl. oz./Treated Acre (7 pints)
12	43,560	1.2	1.8	2.5
18	29,040	1.9	2.7	3.8
24	21,780	2.5	3.7	5.1
30	17,424	3.2	4.6	6.4
36	14,520	3.9	5.6	7.8
48	10,890	5.1	7.4	10.2
60	8,712	6.3	9.2	12.8
72	7,260	7.6	11.1	15.4

CHEMIGATION

DRIP IRRIGATION: FLUENSULFONE 480EC CA can be applied through low volume (ground or underground) drip, drip tape, strip tubing, drip line, micro-emitter or micro-sprinkler application.

Wet the bed prior to application to ensure maximum distribution of **FLUENSULFONE 480EC CA**. Prepare the application mix as indicated in Chart 2. The amount of product required for a drip application will vary with the width of the planting bed, row length and wetting front of the application. Use Chart 3 to determine the amount of product required. Assume the wetting front is the same as the bed width for up to a maximum of 36 inches, determining the rate to apply.

For drip irrigation, **FLUENSULFONE 480EC CA** can be added directly to the irrigation system and applied with sufficient water and duration to uniformly wet the irrigation zone width or the entire bed width and root zone 6-8 inches deep no less than 7 days before planting. Rates are to be calculated based on the width of the application zone comprising the treated acre.

The amount of water needed for an application will depend upon the initial level of soil moisture, the soil type, % organic matter and condition and the placement of the drip tape(s) as well as drip tape emitter spacing, etc. Allow enough time in the application cycle to charge the irrigation system, then apply **FLUENSULFONE 480EC CA** into the target root zone and flush the system lines with water. Injection timing during the irrigation cycle depends on soil type and drip tape placement. Do not over apply system rinse water and wash the **FLUENSULFONE 480EC CA** from the root zone. Irrigate after application based on the timings and quantities in Chart 1. Following planting, resume normal irrigation practices.

FLUENSULFONE 480EC CA may not be applied in conjunction with a drip line cleaning product as performance may be reduced.

The entire irrigation system including emitters need to be checked to ensure the system is operating normally before injecting **FLUENSULFONE 480EC CA**. Do not connect an irrigation system (including greenhouse systems) used to apply pesticides to any public water system unless the pesticide label prescribed safety devices for public water systems are in place. In addition, check local and state regulations regarding the injection of pesticides into public water systems. A person knowledgeable of the chemigation system and responsible for its operation, or a person under the supervision of the responsible person, is responsible to shut the system down and make necessary adjustments as needed.

Follow manufacturer's instructions to maintain the drip system at a low enough pressure to prevent fogging and/or misting during applications. Inject **FLUENSULFONE 480EC CA** into the irrigation system after the filter(s) and automatic back flush system in order to avoid back flushing of treated water.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials compatible with pesticides and capable of being fitted with a system interlock.

SPRINKLER APPLICATION: Apply **FLUENSULFONE 480EC CA** only through sprinkler (including center-pivot, lateral move, or solid set) irrigation systems.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

Calibration: (Center-pivot and Self-Propelled Lateral Move Systems): Sprinkler irrigation systems must be accurately calibrated for application of **FLUENSULFONE 480EC CA**. Greater accuracy in calibration (and distribution) will be achieved by injecting a larger volume of a more dilute mixture of product and water per hour. Follow these steps below to calibrate center pivot or lateral move systems.

1. Determine number of minutes required to make one complete revolution while applying 0.6 to 1 inch of water per acre.
2. With the system at operating pressure, determine the exact number of minutes required to inject one gallon of water.
3. Divide the time required to for one revolution (step 1) by the time required to inject one gallon (step 2). This gives the total number of gallons of product-water mixture to be added to the nurse tank.
4. Add required amount of water to nurse tank and start the agitation system. Then add sufficient **FLUENSULFONE 480EC CA** at the listed rate (See Broadcast Applications) to the nurse tank.

EXAMPLE: If 20 hours (1200 minutes) were required for one revolution and if 2 minutes were required to inject one gallon, then a total of 600 gallons of product-water mixture are required ($1200/2 = 600$); to treat 135 acres at 5 pints/acre, 675 pints (84 gallons and 3 pints) of **FLUENSULFONE 480EC CA** are required.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water system are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being with-drawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

System must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors the drift beyond the area intended for treatment.

Maintain continuous agitation in the injection nurse tanks during the herbicide application, sufficient to keep herbicide in suspension.

Apply specified dosage in 0.6 to 1 inch of water per acre as a continuous injection in center pivot and lateral move systems or in the last 15 to 30 minutes of set in permanent solid set sprinkler systems. Application of less than the quantity of irrigation water indicated on this label may result in decreased product performance by not allowing chemical to penetrate deep into the soil profile. Where sprinkler distribution patterns do not overlap sufficiently unacceptable performance may result.

Where sprinkler distribution patterns overlap excessively crop injury may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off the irrigation water. To ensure that lines are flushed and free of remaining pesticide, an indicator dye may be injected into the lines to mark the end of the application period.

Use of a minimum of 1-part water to 1-part **FLUENSULFONE 480EC CA** for injection. The use of a larger volume of water will ensure greater accuracy and more uniform distribution.

Consult State Agricultural Experiment stations for State Agricultural Extension Service for additional information as the time of applications needed will vary with the local conditions.

ROTATIONAL CROPS*

Replant treated areas with any crop specified on a **FLUENSULFONE 480EC CA** label or any crop for which a tolerance exists for the active ingredient as soon as practical following the last application. There is a 90-day plant back interval for wheat, barley, buckwheat, and oat and a 10-month plant back for all other cereal grain crops. For crops not listed on a **FLUENSULFONE 480EC CA** label, or for crops for which no tolerances for the active ingredient have been established, a 365 day plant-back interval must be observed.

IMMEDIATE PLANT-BACK: All crops on this label plus the following crops not on this label: commercial turf



*Plant cover crops for soil building or erosion control at any time.

Application can be made for the following crops:

Crop Group	Rate	Application Information
BRASSICA (COLE) LEAFY VEGETABLES (Crop Group 5)[*] Broccoli, Cabbage, Cauliflower and other brassicas including: broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard (gai choy); cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens, Japanese mustard spinach and hot herb mustard	3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)	Transplanting: Apply (broadcast, banded, or chemigation) 30 - 35 days prior to transplanting. Direct seeding: Apply (broadcast, banded, or chemigation) 30 -35 days before seeding and make 2 supplemental irrigations prior to planting as per Chart 1. Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year. Recommended rate is 3.5 to 5 pints/treated acre in well drained soils.

<p>CITRUS FRUIT GROUP (Crop Group 10-10) *</p> <p>Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these.</p>	<p>3.5 to 7 pints/ treated acre^[*] (56 to 112 fl. oz./treated acre)</p> <p>[Note: *For use in California, apply at 7 pints/treated acre.]</p>	<p>Apply (broadcast, banded, or via chemigation) FLUENSULFONE 480EC CA 1st application in spring before flowering before root flush, 60 days PHI in bearing trees 2nd application in fall immediately after harvest before root flush.</p> <p>Alternatively, apply a single application of FLUENSULFONE 480EC CA either at spring root flush before flowering or post harvest (bearing trees) at fall root flush.</p> <p>Do not apply more than two applications per crop, and no more than 3.5 lb fluensulfone per acre, per calendar year.</p>
<p>CUCURBIT VEGETABLES (Crop Group 9)</p> <p>Cucumber, squash, honeydew, watermelon, and other cucurbit vegetables including:</p> <p>Chinese waxgourd (Chinese preserving melon); citron melon; gherkin; gourd, edible (<i>Lagenaria</i> spp. and <i>Luffa</i> spp. includes hyotan, cucuzza, hechima, Chinese okra, spaghetti squash,); Fruits of the gourd (<i>Cucurbitaceae</i>) e.g., <i>Cucurbita pepo</i> (i.e., crookneck squash, straightneck squash, scallop squash, and vegetable marrow); <i>Sechium edule</i> (chayote); and other cultivars and/or hybrids of these; <i>Momordica</i> spp (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; summer squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); winter Muskmelon, including hybrids and/or varieties of <i>Cucumis melo</i> (including true cantaloupe, casaba, Santa Claus melon, crenshaw melon, honey balls, Persian melon, golden pershaw melon, mango melon, pineapple melon, snake melon); including hybrids and/or varieties of these; <i>Citrullus</i> spp.</p>	<p>3.5 to 7pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Transplanting: Apply (broadcast, banded, or chemigation) 7-10 days prior to transplanting.</p> <p>Direct seeding: Apply (broadcast, banded, or chemigation) FLUENSULFONE 480EC CA 7-10 days before seeding and make 2 supplemental irrigations prior to planting as per Chart 1.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year.</p> <p>Recommended rate is 3.5 to 5 pints/treated acre in well drained soils.</p>

<p>FRUITING VEGETABLES (Crop Group 8-10)</p> <p>Tomato, bell pepper and other fruiting vegetables including:</p> <p>African eggplant; bush tomato; All varieties of pepper (includes pepper, chili pepper, cooking pepper, pimento, hot and sweet pepper); cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; nonbell pepper; roselle; scarlet eggplant; sunberry; tomatillo; tree tomato; cultivars, varieties, and/or hybrids of these</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Transplanting: Apply (broadcast, banded, or chemigation) FLUENSULFONE 480EC CA 7-10 days prior to transplanting.</p> <p>Direct seeding: apply FLUENSULFONE 480EC CA 7 days before seeding and make 2 supplemental irrigations prior to planting as per Chart 1.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year.</p> <p>Recommended rate is 3.5 to 5 pints/treated acre in well drained soils.</p>
<p>LEAFY VEGETABLES, except BRASSICA Vegetables (Crop Group 4)[*]</p> <p>Celery, Lettuce (head and leaf), Spinach and other leafy vegetables including:</p> <p>Amaranth (Chinese spinach); arugula (roquette); cardoon; celery, Chinese; celtuce; chervil; chrysanthemum, edible-leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock (sorrel); endive (escarole); fennel, Florence; orach; parsley; purslane, garden; purslane, winter; radicchio (red chicory); rhubarb; spinach, New Zealand; spinach, vine; Swiss chard</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Transplanting: Apply (broadcast, banded, or chemigation) FLUENSULFONE 480EC CA 7-10 days prior to transplanting.</p> <p>Direct seeding: Apply (broadcast, banded, or chemigation) FLUENSULFONE 480EC CA 7-10 days before seeding and make 2 supplemental irrigations prior to planting as per Chart 1.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year.</p>
<p>LOW GROWING BERRY (Subgroup 13-07G) including:</p> <p>Strawberry; cultivars, varieties; bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; and/or hybrids of these</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Apply at 7 days before transplanting.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year. For all perennial crops, FLUENSULFONE 480EC CA application may be split between spring and fall. The spring application must be made 30 days or more prior to bloom. The fall application must be made after harvest.</p>
<p>POME FRUIT (Crop Group 11-10)[*] including:</p> <p>Apple; crabapple; loquat; mayhaw; pear; pear, oriental; quince</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Apply (broadcast, banded, or chemigation) FLUENSULFONE 480EC CA 1st application when flower buds start to swell and soil temperatures are above 55°F and apply 2nd application after harvest when soil temperatures are above 55°F.</p>

		<p>Alternatively, apply a single application of FLUENSULFONE 480EC CA when flower buds start to swell and soil temperatures are above 55°F or after harvest when soil temperatures are above 55°F</p> <p>Do not apply more than two applications per crop, and no more than 3.5 lb fluensulfone per acre, per calendar year.</p>
<p>ROOT VEGETABLES (EXCEPT SUGAR BEET) Subgroup 1B</p> <p>Carrot, Radish, Turnip and other root vegetables including:</p> <p>Beet, garden; burdock, edible; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret;</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Application must be made 7 -10 days before planting for seeded crops.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year.</p> <p>Turnip and Japanese white radish (daikon) Transplanting: Apply at 30 days prior to transplanting.</p> <p>Direct seeding: apply FLUENSULFONE 480EC CA 30 days before seeding and make 2 supplemental irrigations prior to planting as per Chart 1.</p>
<p>SMALL FRUIT VINE CLIMBING (Crop Subgroup 13-07D)  including:</p> <p>Amur river grape; gooseberry; grape; kiwifruit, fuzzy; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Apply (broadcast, banded, or chemigation) FLUENSULFONE 480EC CA 1st application when flower buds start to swell and soil temperatures are above 55°F and apply 2nd application after harvest when soil temperatures are above 55°F.</p> <p>Alternatively, apply a single application of FLUENSULFONE 480EC CA when flower buds start to swell and soil temperatures are above 55°F or after harvest when soil temperatures are above 55°F.</p> <p>Do not apply more than 3.5 lb fluensulfone per acre, per calendar year.</p>
<p>STONE FRUIT (Crop Group 12-12)  including:</p> <p>Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum;</p>	<p>3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)</p>	<p>Apply (broadcast, banded, or chemigation) 1st application when flower buds start to swell and soil temperatures are above 55°F and apply 2nd application after harvest when soil temperatures are above 55°F.</p>

plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these		<p>Alternatively, apply a single application of FLUENSULFONE 480EC CA when flower buds start to swell and soil temperatures are above 55°F or after harvest when soil temperatures are above 55°F</p> <p>Do not apply more than two applications per crop, and no more than 3.5 lb fluensulfone per acre, per calendar year.</p>
SUGARCANE[*]	3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)	<p>Apply Broadcast or banded. Apply at planting and/or at ratoon .</p> <p>Do not apply more than 3.5 lb fluensulfone per acre, per calendar year.</p>
TREE NUTS (Crop Group 14-12)[*] including: African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pecan; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these	3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)	<p>Apply (broadcast, banded, or chemigation) 1st application when flower buds start to swell and soil temperatures are above 55°F and apply 2nd application after harvest when soil temperatures are above 55°F.</p> <p>Alternatively, apply a single application of FLUENSULFONE 480EC CA when flower buds start to swell and soil temperatures are above 55°F or after harvest when soil temperatures are above 55°F</p> <p>Do not apply more than two applications per crop, and no more than 3.5 lb fluensulfone per acre, per calendar year.</p>
TOBACCO[*]	3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)	<p>Apply 7 to 10 days before transplanting.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb. fluensulfone per acre per calendar year.</p>
Tuberous and Corm Vegetables (Subgroup 1C)[*] Potato, sweet potato, yam and other root vegetables including: arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; tanier; turmeric; yam bean; yam, true	3.5 to 7 pints/ treated acre (56 to 112 fl. oz./treated acre)	<p>Application can be made at planting or pre-planting.</p> <p>Do not apply more than one application per crop and no more than 3.5 lb fluensulfone per acre per calendar year.</p>

[*Not for use in California]

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE:

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area.

Do not store above 100°F for extended periods of time. Storage below 20°F can result in formation of crystals. If product crystallizes, store at 50°F to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

PESTICIDE DISPOSAL:

Open dumping is prohibited. Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

NONREFILLABLE CONTAINERS:

Rigid, Nonrefillable containers small enough to shake (i.e. with capacities equal to less than five gallons).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

Rigid, Nonrefillable containers that are too large to shake (i.e. with capacities greater than 5 gallons or 50 lbs).

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or a mix tank or collect rinsate at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

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.

REFILLING OR RETURNING CONTAINERS:

If refilling or returning container is planned, end users are not authorized to remove tamper evident cables, one way valves or clean container.

RECYCLE OR DISPOSAL OF CONTAINERS:

End users are authorized to remove tamper evident cable as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. Instructions for container rinsing and either recycling or disposal are as follows:

Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing 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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums and Kegs).

Triple rinsing 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 triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES, and LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ADAMA. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ADAMA makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of ADAMA is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ADAMA disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at ADAMA's election, the replacement of product.

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