



# CELSIUS®

## XTRA

### Herbicide

THIENCARBAZONE-METHYL	GROUP 2	HERBICIDE
IODOSULFURON-METHYL-SODIUM		
HALOSULFURON-METHYL		

Water Dispersible Granule

Intended for use by commercial applicators.

A herbicide for control of annual and perennial broadleaf weeds, sedges and kyllingas in warm-season turf types (St. Augustinegrass, Bermudagrass, Centipedegrass, Zoysiagrass) in institutional, commercial, industrial, sports and residential sites, and sod farms.

**ACTIVE INGREDIENT(S):**

Thiencarbazone-methyl (CAS Number 317815-83-1)..... 4.29%

Iodosulfuron-methyl-sodium (CAS Number 144550-36-7) ..... 0.93%

Halosulfuron-methyl (CAS Number 100784-20-1) .....10.00%

**OTHER INGREDIENTS:** ..... 84.78%

**TOTAL:** ..... 100.00%

EPA Reg. No. 101563-212

## KEEP OUT OF REACH OF CHILDREN CAUTION

For **MEDICAL** and **TRANSPORTATION** Emergencies **ONLY**

Call 24 Hours A Day 1-800-424-9300

For **PRODUCT USE** Information Call 1-800-331-2867

See Back Panel for First Aid Instructions and Booklet for Complete Precautionary Statements and Directions for Use.

PRODUCED FOR  
Environmental Science U.S., LLC  
5000 CentreGreen Way, Suite 400  
Cary, NC 27513

FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If Inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p><b>In case of emergency call toll free the Environmental Science U.S., LLC Emergency Response Telephone No. 1-800-424-9300.</b>  <b>Have a product container or label with you when calling a poison control center or doctor, or going for treatment.</b></p>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Harmful if swallowed. Harmful if 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.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks
- Chemical resistant gloves made out of any waterproof material

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

## ENGINEERING CONTROLS

When handlers use closed systems or enclosed cabins 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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, including a spill or equipment breakdown.

### User Safety Recommendations

#### Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

This product is toxic to non-target vascular plants. **DO NOT** drain or rinse equipment near desirable vegetation. 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 washwater or rinsate.

### Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of halosulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### Ground Water Advisory

Some of the chemicals in this product, including halosulfuron-methyl, are known to leach through soil into groundwater under certain conditions as a result of labelled use. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Non-target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Mandatory Spray Drift and Advisory Spray Drift sections of this label.

### Windblown Soil Particles Advisory

Celsius® XTRA has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying Celsius XTRA if prevailing local conditions may be expected to result in off-site movement.

## DIRECTIONS FOR USE

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

Read the entire label before using this product.

**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.

## 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.

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, including plants, soil, or water), is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made out of any waterproof material
- Chemical-resistant footwear and socks

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Residential and Golf course uses are not within the scope of the Worker Protection Standard.

**Reentry Statement:** **DO NOT** allow people or pets to enter the treated area until sprays have dried.

### Celsius XTRA Rate Conversion

Ounces product per Acre	lbs ai/A Thiencarbazone-methyl	lbs ai/A Iodosulfuron-methyl-sodium	lbs ai/A Halosulfuron-methyl
5.0	0.0134	0.00291	0.0313
7.5	0.0201	0.00436	0.0469
10.0	0.0268	0.00581	0.0625

## PRODUCT INFORMATION

Celsius XTRA is designed for selective, postemergence control of broadleaf weeds, sedges, and kyllingas in established warm-season turfgrass types. Weed growth stops within hours of application. The speed of weed control is enhanced when soil and air temperatures are warm and soil is moist.

Celsius XTRA advantages:

- Postemergence activity in turfgrass for broadleaf weed and sedge control
- Weed growth stops within hours of application

### Use Sites

Celsius XTRA provides weed control in turfgrass associated with the following use sites:

- **Residential turf/lawns use sites** – which includes residential properties, homes, apartment complexes, condominiums, nursing homes, mobile homes, as well as turfgrasses established around residences, parks, and streets.
- **Institutional/Commercial turf use sites** – which includes golf courses (tees/fairways/roughs), public access areas, roadsides, school grounds, retirement homes, municipal and public parks, amusement parks, fairsgrounds, airports, resorts, sports facilities and athletic fields, theaters, cabins/campgrounds, government buildings, office buildings, cemeteries, institutional buildings, malls, hotels, churches, grocery stores/markets, and restaurants.
- **Non-crop areas** – which includes paths, parking lots, curbs, sidewalks, driveways, around industrial buildings, gravel areas, loading ramps, storage yards, vacant lots, industrial lots, fence rows, mulch beds, and hardscapes.
- **Commercial sod production** – sod farms.

## ACCEPTABLE TURF TYPES

St. Augustinegrass, Bermudagrass, Zoysia, Centipedegrass and Buffalograss have demonstrated their inherent ability to endure applications of Celsius XTRA. Though not all grass types have been evaluated, other turfgrasses may also demonstrate endurance to this product. Before treating additional turf grass types or newly released varieties, first apply Celsius XTRA to a small area prior to treatment of large areas. Unless injury is desired, **DO NOT** use this product on bahiagrass, Seashore paspalum, or cool-season grasses, including tall fescue, fine fescue, Kentucky bluegrass, perennial ryegrass or creeping bentgrass.

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Celsius XTRA contains Group 2 herbicides. Any weed population may contain or develop plants naturally resistant to this product and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same area. Appropriate resistance management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Celsius XTRA or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or pest control advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use, and that considers mechanical control methods, cultural (e.g., timing to favor the turf and not the weeds), biological (weed-competitive varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: 1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; 2) a spreading patch of non-controlled plants of a particular weed species; 3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method. Prevent movement of resistant weed seeds to other areas by cleaning equipment.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific weed biotypes.
- For further information or to report suspected resistance contact Environmental Science U.S., LLC at 1-800-331-2867. You can also contact your pesticide distributor or university extension specialist to report resistance.

## MIXING AND APPLICATION INSTRUCTIONS

### Mixing Preparation

Celsius XTRA is to be applied with clean and properly calibrated equipment. Prior to adding the product ensure that the spray tank, filters and nozzles have been cleaned. The efficacy of Celsius XTRA may be affected by the pH of the spray solution. A pH near 6 is ideal. If the pH is outside the range 5.0 – 7.5 and if product spray solution is not to be used within 24 hours, add a suitable buffer.

### Mixing Instructions for Celsius XTRA alone

- Fill spray tank with  $\frac{1}{2}$  required volume of water.
- With agitator running, add Celsius XTRA to the mix tank and allow product to disperse.
- If applicable, add spray surfactant or adjuvant(s) and finish filling the spray tank to desired volume.
- Continue agitation while adding the remainder of the water.
- Begin application after the product has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

### Tank Mixture Compatibility Test

When mixing Celsius XTRA with new or unknown tank mix partners including pesticides, fertilizers, spray adjuvants and micronutrients, perform a compatibility test to determine potential for incompatibility during mixing. Evaluate these tank mixtures in a limited area before widespread applications. St. Augustinegrass may show increased sensitivity to tank mixtures of Celsius XTRA and other products.

The recommended compatibility test is as follows:

- Use a clear jar with a secure water tight lid.
- Add a small amount of source water (e.g. 1 quart), followed by each mixture partner at planned labelled use rates, using mixing order as described below.
- With all mixture partners added, securely cap jar and invert 10 to 15 times to mix each component. Let stand for 15-20 minutes.
- Observe solution for any signs of incompatibility or instability. Mixed solution must be free from formed precipitates, gels, heavy free oil films, or separations of mixture components, including distinct layering.
- If incompatibility is noted, repeat steps above by removing individual components to determine a compatible mixture, if desired. Additionally, if mixture is readily re-mixable, then mixture can be used so long as agitation is maintained.
- If incompatibility is not resolved, **DO NOT** use this tank mix combination.

Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. For further information, contact your local Environmental Science U.S., LLC representative.

### Mixing Order of Celsius XTRA + Tank Mixture Partners

If using Celsius XTRA in a tank mixture, observe all directions for use, sites, rates, dilution ratios, precautions, and limitations, which appear on the tank-mix product label. This product must not be mixed with any product that prohibits such mixing. Tank mixtures or other applications of products

are permitted only in those states in which the products are registered.

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.

- Add ½ of the required amount of water to the mix tank. Start the agitator running before adding any of the tank mixture partners.
- Add all products in water-soluble packaging to the tank before any other tank-mix partner, including Celsius XTRA.
- Allow water-soluble packaging to completely disperse before adding any other tank mixture partners to the tank. In general, tank mixture partners are added in this order:
  1. Products packaged in water-soluble packaging
  2. Wettable powders
  3. Wettable granules (dry flowables)
  4. Liquid flowables
  5. Liquids
  6. Emulsifiable concentrates
  7. Fertilizers, spray adjuvants
- Always allow each tank mixture partner to become fully and uniformly dispersed before adding the next product.
- Continue agitation while adding the remainder of the water.
- Begin application of the solution after all products have completely, and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

#### Equipment Cleaning Instructions

1. Drain the tank completely, then wash out tank, boom and hoses with clean water. Drain again.
2. Fill the tank half full with clean water and add ammonia (3% domestic ammonia) at a dilution rate of 1% (i.e. 1 gallon ammonia per 100 gallons of water). Fill the tank and agitate for 10 minutes. Then flush through the boom and hoses and drain tank completely.
3. Repeat step 2.
4. Remove nozzles, screens and filters and soak in 1% ammonia solution.
5. Flush tank and the whole sprayer system with clean water.
6. Inspect tank for visible residues. If present, repeat starting at step 2.

#### USE RESTRICTIONS

- **DO NOT** apply more than 15 ounces of Celsius XTRA (0.0402 lbs thien carbazole-methyl; 0.00872 lbs Iodosulfuron-methyl-sodium; 0.0938 lbs Halosulfuron-methyl) per acre per year.
- **DO NOT** apply more than 10 ounces of Celsius XTRA (0.0268 lbs thien carbazole-methyl; 0.00581 lbs Iodosulfuron-methyl-sodium; 0.0625 lbs Halosulfuron-methyl) per acre in a single application.
- **DO NOT** make more than 2 applications per year of Celsius XTRA. Allow 6-8 weeks between applications.

- **DO NOT** apply this product to St. Augustinegrass if a frost or freeze is expected within 48 hours of application.
- **DO NOT** apply this product on turf exhibiting injury from previous applications of other products.
- **DO NOT** plant landscape ornamentals or bedding plants in treated areas for at least 30 days after the last application of this product.
- **DO NOT** use this product on bahiagrass, seashore paspalum, or cool-season turf types, including tall fescue, fine fescue, Kentucky bluegrass, perennial ryegrass, or creeping bentgrass unless injury is desired.
- **DO NOT** allow livestock to graze on any areas treated with this product.
- **DO NOT** mow immediately after treating with this product or before spray has dried. After treatment, **DO NOT** transfer clippings to non-target areas.
- After application, **DO NOT** irrigate until spray has dried.
- **DO NOT** apply this product by air or through any type of irrigation system (chemigation).
- **DO NOT** use this product on golf course greens and collars.

#### State Specific Restrictions:

- Arizona: **DO NOT** use this product on sod farms in Arizona.

#### USE PRECAUTIONS

- Weed control may be reduced if application is made in the presence of heavy dew, fog, and mist/rain or when weeds are under stress due to drought.
- Applications to St. Augustinegrass or centipedegrass turf at temperatures above 90 degrees Fahrenheit may cause temporary discoloration and/or growth regulation. Turf will assume normal growth and appearance within approximately 2-4 weeks.
- The use of surfactants when air temperature are above 90 degrees Fahrenheit, coupled with high humidity may cause temporary injury to treated turf.
- Application of this product near the roots of newly planted landscape ornamentals may result in undesirable plant injury or death.

## MANDATORY SPRAY DRIFT

### Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## Advisory Spray Drift

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### Handheld Technology Applications:

- Take precautions to minimize spray drift.

### Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Boom Height – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## WEED CONTROL DIRECTIONS

Apply Celsius XTRA to established turf, unless otherwise noted on this product label (see 'Seeding and Sprigging Intervals' section). For best results, make applications to actively growing weeds. Mature, hardened-off weeds may not be controlled. Rainfall before spray has dried may necessitate retreatment with this product, or reduced weed control may result. Apply spray mixtures of this product within 24 hours of mixing to avoid product degradation.

### For Broadcast Applications:

Apply when emerged weeds are actively growing. Uniform applications are essential to avoid turf injury and achieve effective weed control. Optimum application spray volumes consist of a minimum of 10 gallons of water per acre. For weed control in dense weed populations, control of weeds under adverse growing conditions, or control of mature weeds, increase the spray volume to 60 gallons per acre. Select spray nozzles and pressure that deliver at least medium spray droplets. For further information, see 'Mandatory Spray Drift and the Advisory Spray Drift sections of the label. Use Celsius XTRA in combination with a surfactant unless air temperature exceeds 90 degrees Fahrenheit coupled with high humidity at the time of application.

Single application	Rates Oz per Acre (oz per 1000 sq ft)
	7.5 - 10 oz/A (0.17- 0.23 oz)

Split application program	Initial Application (oz per 1000 sq ft)	5 to 7 weeks after initial application
	7.5 oz/A (0.17 oz)	7.5 oz/A (0.17 oz)
	10 oz/A (0.23 oz)	5.0 oz/A (0.12 oz)

**DO NOT** apply more than a total of 15 oz (425.25 g) of product per acre (0.34 oz or 9.76 grams of product per 1,000 sq ft) per year.

#### For Spot Applications

Apply as a spot treatment to control individual weeds or patches of weeds. Mix 0.17 oz. - 0.23 oz of Celsius XTRA per gallon of water and add a non-ionic surfactant at 0.25% v/v (0.36 oz/gal or 2 tsp/gal) to treat 1,000 sq. ft. Spray weeds to wet but avoid spraying to the point of run-off. Spot treatments may cause yellowing and/or growth regulatory effects to the turfgrass.

#### Sodded, Seeding and Sprigging Intervals for Acceptable Turf Types

**Seeded Bermudagrass, Zoysiagrass and Centipedegrass:** This product may be applied up to 60 days prior to seeding without a significant reduction in stand. For newly established stands, application of this product within 4 weeks of emergence may result in injury.

**Sprigged Turfgrasses:** This product may be applied to sprigged turfgrass once well established.

#### BERMUDAGRASS OVERSEEDED WITH RYEGRASS

Bermudagrass may be treated with broadcast applications of Celsius XTRA prior to overseeding. Allow a minimum of 14 days between broadcast applications of Celsius XTRA to established turf and overseeding with ryegrass. Allow a minimum of 60 days between broadcast applications of Celsius XTRA to bareground or to thin turf with significant areas of bareground. Intervals less than these may cause undesirable reductions in the stand of ryegrass. When making spot applications, allow 28 days before overseeding ryegrass.

#### Newly Sodded Lawns:

For newly sodded lawns, wait until the turfgrass has fully rooted before using this product.

#### Use of Celsius XTRA near Sensitive Grasses on Golf Course Turf

Celsius XTRA can damage or control cool season grasses. Some use sites, including many golf

courses, grow warm and cool season grasses in the same vicinity. To reduce the probability of Celsius XTRA being moved from its application site to adjacent areas containing sensitive grasses, practice the following:

- Where there may be a risk to adjacent sensitive grasses, apply Celsius XTRA when the soil is less than field capacity. Avoid applications to saturated soil.
- Allow Celsius XTRA to be absorbed several hours prior to an irrigation cycle. If dew is present on the day following application, irrigate lightly (0.1-0.2 inch) prior to allowing foot traffic or equipment on the treated area.

WEEDS CONTROLLED OR SUPPRESSED	
Common Name	Scientific Name
American bumweed; Fireweed	<i>Erechtites hieraciifolia</i>
Annual lespedeza; Common lespedeza; Japanese clover	<i>Lespedeza striata</i>
Bedstraw	<i>Galium spp.</i>
Black medic; Hop medic	<i>Medicago lupulina</i>
Blackseed plantain	<i>Plantago rugelii</i>
Braacted plantain	<i>Plantago aristata</i>
Brazilian pusley	<i>Richardia brasiliensis</i>
Broadleaf filaree	<i>Erodium botrys</i>
Broadleaf plantain; Common plantain	<i>Plantago major</i>
Buckhorn plantain; Narrowleaf plantain	<i>Plantago lanceolata</i>
Burclover, Spotted	<i>Medicago arabica</i>
Buttercup, Small-flowered	<i>Ranunculus abortivus</i>
California burclover	<i>Medicago polymorpha</i>
Canada thistle**	<i>Cirsium arvense</i>
Carolina dichondra; Dichondra	<i>Dichondra carolinensis</i>
Carolina false dandelion	<i>Pyrrhappus carolinianus</i>
Carolina geranium; Wild geranium	<i>Geranium carolinianum</i>

(continued)

WEEDS CONTROLLED OR SUPPRESSED	
Common Name	Scientific Name
Carpetweed; Indian chickweed	<i>Mollugo verticillata</i>
Catsear dandelion	<i>Hypochoeris radicata</i>
Chamberbitter	<i>Phyllanthus urinaria</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Common chickweed	<i>Stellaria media</i>
Common purslane	<i>Portulaca oleracea</i>
Common ragweed	<i>Ambrosia artemisiifolia</i>
Common sunflower	<i>Helianthus annuus</i>
Common vetch	<i>Vicia sativa</i>
Corn speedwell	<i>Veronica arvensis</i>
Corn Spurry	<i>Spergula arvensis</i>
Creeping beggarweed	<i>Desmodium incanum</i>
Cudweed	<i>Gnaphalium</i> spp.
Curly dock	<i>Rumex crispus</i>
Cutleaf evening primrose	<i>Oenothera laciniata</i>
Dandelion, Common	<i>Taraxacum officinale</i>
Deadnettle, Red	<i>Lamium purpureum</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Dollarweed; Pennywort	<i>Hydrocotyle</i> spp.
Doveweed**	<i>Murdannia nudiflora</i>
Facelis; Annual trampweed	<i>Facelis retusa</i>
Field madder	<i>Sherardia arvensis</i>
Field pansy, Johnny jump-up	<i>Viola bicolor</i> ( <i>V. rafinesquei</i> )
Field pepperweed	<i>Lepidium campestre</i>

WEEDS CONTROLLED OR SUPPRESSED	
Common Name	Scientific Name
Fleabane	<i>Erigeron</i> spp.
Fleabane, Philadelphia	<i>Erigeron philadelphicus</i>
Florida betony	<i>Stachys floridana</i>
Florida pusley	<i>Richardia scabra</i>
Galinsoga	<i>Galinsoga</i>
Ground ivy; Creeping Charlie	<i>Glechoma hederacea</i>
Hairy bittercress**	<i>Cardamine hirsuta</i>
Henbit	<i>Lamium amplexicaule</i>
Hop clovers, several species	<i>Trifolium</i> spp.
Horseweed; Maretail**	<i>Conyza canadensis</i>
Khakiweed**	<i>Alternanthera pungens</i>
Knawel	<i>Scleranthus annuus</i>
Knotweed, Silversheath	<i>Polygonum argyrocoleon</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lawn burweed; Spurweed	<i>Soliva sessilis</i>
London rocket	<i>Sisymbrium irio</i>
Mallow, Venice	<i>Hibiscus trionum</i>
Mouse-ear chickweed	<i>Cerastium vulgatum</i>
Nettleleaf goosefoot	<i>Chenopodium murale</i>
Paleseed plantain	<i>Plantago virginica</i>
Parsley piert	<i>Aphanes microcarpa</i>
Pennsylvania smartweed	<i>Polygonum pennsylvanicum</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>

(continued)

(continued)

WEEDS CONTROLLED OR SUPPRESSED	
Common Name	Scientific Name
Pokeweed, Common	<i>Phytolacca americana</i>
Prostrate knotweed	<i>Polygonum aviculare</i>
Prostrate spurge**	<i>Chamaesyce maculata</i>
Purple cudweed	<i>Gnaphalium purpureum</i>
Rabbitfoot clover	<i>Trifolium arvense</i>
Radish, Wild	<i>Raphanus raphanistrum</i>
Ragweed, Giant	<i>Ambrosia artemisiifolia</i>
Red sorrel	<i>Rumex acetosella</i>
Redroot pigweed	<i>Amaranthus retroflexus</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Slender aster	<i>Eurybia compacta</i>
Spiny sowthistle**	<i>Sonchus asper</i>
Spurge, Spotted	<i>Chamaesyce maculata (Euphorbia maculata)</i>
Swinecress	<i>Coronopus didymus</i>
Thistle, Plumeless	<i>Carduus</i> spp.
Toadflax, Texas	<i>Nuttallanthus texanus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Violet, Wild	<i>Viola</i> spp.
Virginia buttonweed**	<i>Diodia virginiana</i>
White clover	<i>Trifolium repens</i>
Wild carrot; Queen Anne's lace	<i>Daucus carota</i>
Wild garlic; Field garlic**	<i>Allium vineale</i>
Wild mustard	<i>Sinapis arvensis</i>

WEEDS CONTROLLED OR SUPPRESSED	
Common Name	Scientific Name
Wild onion	<i>Allium canadense</i>
Wild pansy; European field violet	<i>Viola arvensis</i>
Yellow woodsorrel; Oxalis	<i>Oxalis stricta</i>
Sedges & Killings	
Annual kyllinga; Fragrant kyllinga	<i>Cyperus sesquiflorus</i>
Annual sedge	<i>Cyperus compressus</i>
Cocks-comb kyllinga	<i>Kyllinga squamulata</i>
Cylindric sedge; Pinebarren flatsedge**	<i>Cyperus retrorsus</i>
False green kyllinga**	<i>Kyllinga gracillima</i>
Flatsedge, Rice	<i>Cyperus iria</i>
Globe sedge	<i>Cyperus croceus (C. globulosus)</i>
Green kyllinga; Perennial kyllinga	<i>Kyllinga brevifolia (Cyperus brevifolius)</i>
Nutsedge, Purple	<i>Cyperus rotundus</i>
Nutsedge, Yellow	<i>Cyperus esculentus (Kyllinga odorata; C. sesquiflorus)</i>
Surinam sedge; Tropical flatsedge**	<i>Cyperus surinamensis</i>
Tufted kyllinga; Low spike sedge	<i>Kyllinga pumila (Cyperus tenuifolius; C. densicaespitosus; K. tenuifolia)</i>
White kyllinga	<i>Kyllinga nemoralis (Cyperus kyllingia; K. monocephala; K. intermedia)</i>
Grass Weeds	
Clumpy ryegrass	<i>Lolium perenne</i>
Japanese stiltgrass	<i>Microstegium vimineum</i>
Yellow foxtail	<i>Pennisetum glaucum</i>

\*\*Suppression

Celsius XTRA rates and measurements chart for backpack-sprayers and hand cans  
(For spot applications only)

**Labeled Use Rates**

Celsius XTRA Use Rates	oz/1000 sq ft	grams/1000 sq ft	oz/A	grams/A
Low	0.172	4.9	7.5	210
High	0.229	6.5	10	280
Sequential*	0.115	3.3	5	140

\*Sequential Rate is part of a Sequential Application Program. It is used, when necessary, as a follow-up to an initial High Rate application.

## 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 the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking or material is spilled, sweep up and remove to chemical waste area. Refer to Precautionary Statements on label for hazards associated with the handling of this material. **DO NOT** walk through spilled material. In spill or leak incidents, keep unauthorized people away.

### Pesticide Disposal

Pesticides wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or Hazardous Waste representative at the nearest EPA regional office for guidance in proper disposal methods.

### Container Handling

**For solid dilutables in containers small enough to shake (5 gallons or 50 pounds or less)**

Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**For any dilutable pesticide in containers too large to shake (larger than 5 gallons or 50 pounds)**

Non-refillable container. **DO NOT** reuse or refill this container. Triple Rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

### Products in Non-Refillable Fiber Drums with Liners

Non-refillable container. **DO NOT** reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment, then offer for recycling if available or dispose of in a sanitary landfill or by incineration. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

## CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer 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. Ineffectiveness, plant injury, other property damage, as well as other unintended consequences may result because of factors beyond the control of Environmental Science U.S., LLC. Those factors include, but are not limited to, weather conditions, presence of other materials or the manner of use or application. All such risks shall be assumed by the user or buyer.

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