UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 12 2007

Willard F. Cummings
Chemtura Corporation
199 Benson Road
Middlebury, CT 06749

Dear Mr. Cummings:

Label Revision Amendments
Casaron CS
EPA Reg. No. 400-541
Submission dated September 30, 2006

The labeling, referred to above, submitted in connection with the application under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, provided that you make the following changes:

1. Under "Environmental Hazards";

   Add the following statement:
   "This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground-water contamination."

2. Under "Application Instructions";

   Add the following spray drift control measures:

   Spray Drift: The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species or nontarget crops) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

   To minimize spray drift, the applicator should be familiar with and take into account the following drift reduction advisory information. Additional information may be available from state enforcement agencies or the Cooperative Extension on the application of this product.
   The best drift management strategy and most effective way to reduce drift potential are to apply large droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are

made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity** and **Temperature Inversions**).

Controlling Droplet Size:
• **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
• **Pressure - DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
• **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
• **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
• **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
• **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift. **DO NOT** use nozzles producing a mist droplet spray.
Application Height: Making applications at the lowest possible height (aircraft, ground-driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.
Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft, ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).
Wind: Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential.
NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.
Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud, which can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be

indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Wind Erosion: Avoid treating powdery, dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

3. Under "Important Notice";

Rearrange this paragraph to several short sentences for easier comprehension. For example, the first sentence should end at "under normal conditions of use." The second sentence should end at "extends to the use of this product." The third sentence should be "To the extent permitted by law, buyer assumes the risk if it is used in contrary to label instructions . . . foreseeable to seller."

The amended label supersedes all previously accepted labels. A stamped copy of the revised label is enclosed for your records. Please submit one copy of your final printed label before you release the product for shipment.

Sincerely yours,

Jim Tompkins
Product manager (25)
Herbicide Branch
Registration Division (7505P)

Enclosure

CONCURRENCES								
SYMBOL ☐	7505P	7505P						
SURNAME ☐	Bien	Tompkins						
DATE ☐	7-12-07							

4/8

Casoron® CS

BROADLEAF AND GRASS HERBICIDE

ACCEPTED
with COMMENTS
in EPA Letter Dated

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.
400-54

COMPOSITION

Active Ingredient: (% by weight)

Dichlobenil (2,6-dichlorobenzonitrile)	15.3%
Inert Ingredients:	84.7%
Total:	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

JUL 12 2007

Net contents:

FIRST AID

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.**

EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

EMERGENCY PHONE	**800-292-5898**
SAFETY DATA AND INFORMATION	**203-573-3303**
TRANSPORTATION EMERGENCY (CHEMTREC)	**800-424-9300**

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and Other Handlers Must Wear: A long-sleeved shirt & long pants; chemical-resistant gloves made of any waterproof material, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), viton; shoes plus socks.

When handlers use enclosed cabs or aircraft 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/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

Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.

Chemtura

Chemtura USA Corporation
Middlebury, CT 06749

EPA REG. NO.
EPA EST. NO.
001

www.chemtura.com

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using. Do not apply this product as a sewer treatment. 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 the 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 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 soil-injected or soil-incorporated, 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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls
- chemical-resistant gloves made of any waterproof material such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber
- shoes plus 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 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. Do not enter or allow persons or pets to enter treated areas until treated area has dried.

STORAGE AND CONTAINER DISPOSAL

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

PESTICIDE STORAGE - Store in a dry location. Do not store with propagative structures such as seed, bulbs, tubers, nursery stock, etc., or with food or feed products.

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

CONTAINER DISPOSAL - Triple rinse (or equivalent). Then offer for recycling or puncture and dispose of empty container in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

GENERAL PRECAUTIONS AND RESTRICTIONS

This chemical has properties and characteristics associated with chemicals detected in ground-water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination. Do not use in enclosed structures.

GENERAL INFORMATION

Casoron CS is a broad spectrum pre-emergent and early post-emergent herbicide, effective in the control of most annual and perennial grass and broadleaf weeds. Casoron CS is a water based liquid product based on unique formulation technology where pure crystals of the active ingredient are microencapsulated in a polymer membrane. Upon application of Casoron CS, the microcapsules readily infiltrate the soil surface and carry the active ingredient into the upper soil layer, where it is quickly activated by the rapid breakdown of the capsule membrane. Upon activation, the active ingredient absorbs to the organic matter in the soil, providing a highly effective, long lasting herbicidal barrier.

The active ingredient in Casoron CS inhibits new cell growth at the growing points of roots and shoots. The growth of germinating or emerging weeds at or below the herbicidal barrier will be inhibited upon contact. Young, existing weeds with roots in the herbicidal barrier will also be affected and will gradually die. However, well established plants with roots below the herbicidal barrier will not be affected by Casoron CS.

MIXING INSTRUCTIONS

Fill the spray tank with 3/4 of the desired amount of water. Then add the required amount of Casoron CS with agitation running to fully disperse the product in solution. Then fill the tank with the remaining amount of desired water.

Compatibility: To obtain optimum broad spectrum weed control, Casoron CS can be tank mixed with other herbicide products. However, due to variations in water quality, hardness and pH, it is recommended that users conduct small scale trials under local conditions to ensure compatibility prior to any large scale use.

APPLICATION INSTRUCTIONS

For optimum results, apply Casoron CS as soil surface treatment from late fall through early spring. Applications should be made prior to weed emergence, or when emerged weeds are less than 2 inches tall. For quicker or improved activity against emerged weeds, apply recommended rates of glyphosate or other post emergent active herbicides prior to or in a tank mix with Casoron CS.

The lower rate range is recommended for pre-emergent applications and control of annual weed species. The upper rate range is recommended for post-emergent applications and control of perennial weed species.

Do not disturb treated areas after application to maintain the herbicidal barrier. Depending on the geographic area and specific weed problem, a split application in both the fall and spring may be preferred.

Ground Applications

Apply in a large enough volume of water to obtain thorough coverage of the area being treated, typically 7 to 100 gallons per acre for broadcast treatments.

Applications should be made with standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and volume. Applications can also be made with a handgun sprayer, using a spray volume of at least 40 gallons per acre to insure uniform coverage. For small areas, a backpack sprayer may be used.

Aerial Applications

To obtain satisfactory weed control with aerial applications uniform coverage must be obtained. Do not apply when conditions favor drift beyond the target area. Do not spray when wind velocity is more than 10 m.p.h. Avoid spraying to adjacent sensitive crops, or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

Application Volume and Pressure

Use 5 to 10 gals. of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gallons per acre will provide inadequate weed control. Higher gallonage applications provide more consistent weed control.

Nozzle and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm-type nozzles to avoid unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rudders.

Adjuvants

Refer to the tank mix partners label for adjuvant recommendations.

Application Precautions and Restrictions

Because the active ingredient in Casoron sublimates, i.e., changes from solid to a gaseous state, under warm/dry conditions, optimal activity will be achieved when applications are made at temperatures below 70° F (21° C) to moist soil, and/or followed by rainfall or sprinkler irrigation to activate the active ingredient.

Do not use Casoron CS on light, sandy soils, such as St. Lucie fine sand or Arzell fine sand, as the herbicide may penetrate further into the soil and injure non-target plants.

Do not use in greenhouses or other enclosed structures.

Do not apply to any areas not intended to maintain long term total vegetation control of at least one year.

Do not allow the spray solution to come in contact with non-target plants, either through direct application or through drift. Do not apply around non-target plants that have been established in the ground for less than 6 months. See exceptions below for specific sensitive plants.

Do not graze livestock in treated areas.

Do not plant rotational crops, on which Casoron is not registered, in treated soil within one year of application.

The addition of a suspension agent may be needed to maintain product in solution or if agitation stops.

Weeds Controlled

Most germinating seeds and seedlings of annual and perennial grass and broadleaf weed species are controlled by Casoron CS. The following is a list of weed species and their susceptibility to Casoron CS:

Common Name	Scientific Name	Susceptibility
Artichoke, wild	Helianthus spp.	H
Aster, blue	Aster spp.	H
Barley, wild	Hordeum spp.	H
Barnyardgrass	Echinochloa crus-galli	M-H
Bedstraw	Galium aparine	H
Bentgrass	Agrostis spp.	H
Beggartick	Bidens spp.	H
Bermudagrass	Cynodon dactylon	M
Bindweed	Convolvulus spp.	H
Bishops goutweed	Aegopodium podagraria	M
Bittercress	Cardemine spp.	H
Bluegrass	Poa spp.	H
Bluejoint grass	Calamagrostis canadensis	H
Brome	Bromus spp.	H
Buckbean	Menyanthes spp.	H
Buckwheat, wild	Polygonum convolvulus	M
Buttercup	Ranunculus spp.	M
Camphorweed	Heterotheca subaxillaris	H
Carpetweed	Mollugo verticillata	H
Carrot, wild	Daucus spp.	H
Catsear	Hypochoeris spp.	H
Chickweed	Stellaria media	H
Chickweed, mouse-eared	Cerastium vulgatum	H
Citron melon	Citrullus lanatus	H
Clover, crimson	Trifolium incarnatum	M
Coffeeweed	Sesbania herbacea	H
Coltsfoot	Tussilago farfara	H
Cottongrass	Eriophorum spp.	H
Couchgrass, quackgrass	Elytrigia repens	M
Crabgrass	Digitaria spp.	H
Cudweed	Gnaphalium spp.	H
Cutgrass, rice	Leersia oryzoides	H
Dandelion	Taraxacum officinale	H
Deadnettle	Lamium spp.	H
Dock	Rumex spp.	H
Dodder	Cuscuta spp.	H
Dog fennel	Eupatorium capillifolium	H
Fescue	Festuca spp.,Vulpia spp.	H
Fern, bracken	Pteridium aquilinum	H
Fern, royal	Osmunda regalis	H
Fern, sensitive	Onondea sensiblilis	H
Fiddleneck	Amsinckia spp.	H
Filaree, redstem	Erodium cicutarium	H
Fireweed	Epilobium augustifolium	H
Foxtail	Setaria spp., Alopecurus spp.	H
Falsedandelion, Carolina	Pyrrhopappus carolinianus	H
Geranium	Geranium spp.	H
Gisekia	Gesekia spp.	H
Goosefoot	Chenopodium spp.	H
Grasswort	Lilaeopsis spp.	F
Groundsel	Senecio spp.	H
Hairgrass, crinkled	Deschampsia flexcrosa	H
Hawkweed	Hieracium spp.	H
Henbit	Lamium amplexicaule	H
Hogweed	Heracleum sphondilium	H
Horsetail	Equisetum spp.	H
Horseweed	Conyza canadensis	H
Jerusalem oak	Chenopodium botrys	H
Knapweed, Russian	Acroptilon spp.	H
Knotweed	Polygonum spp.	M-H
Kochia	Pueraria cobata	H
Ladythumb	Polygonum persicaria	H
Lambsquarter	Chenopodium spp.	H
Latexplant	Morrenia odorata	H
Lettuce, miners	Lactuca spp.	H
Lettuce, prickly	Lactuca scariola	M-H
Loosestrife	Lysimachia spp.	H
Mannagrass	Glyceria spp.	H
Mallow, little	Malva parviflora	H
Marsh pea	Lathyus palustris	H
Maypop	Passiflora incarnate	H
Mayweed	Anthemis cotula	H
Meadowgrass, annual	Poa annua	H
Morningglory, field	Convolvulus arvensis	M
Moss, hair cap	Polytrichum spp.	H
Mugwort	Artemisia vulgaris	M
Mustard, wild	Brassica spp.	M-H
Natalgrass	Rhynchelytrum repens	H
Neddlegrass	Stipa spp.	H
Nettle	Urtica spp.	H
Nightshade, black	Solanum nigrum	M
Nutsedge	Cyperus spp.	N-M
Oxalis	Oxalis spp.	H
Orchard grass	Dactylis glomerata	H
Panicum, Texas	Panicum texanum	H
Peppergrass	Lepedium spp.	H
Pigweed	Amaranthus spp.	H

Common Name	Scientific Name	Susceptibility
Pineapple weed	Matricaria matricarioides	H
Plantain	Plantago spp.	H
Primrose, evening	Oenothera spp.	H
Purslane	Portulaca oleracea	H
Pusley, Florida	Antennaria spp.	H
Radish, wild	Raphanus raphanistrum	H
Ragweed	Ambrosia spp.	H
Ragwort, tansy	Senecio jacobaea	H
Rattlesnake grass	Brizia media	H
Reed, common	Phragmites australis	N
Rocket, yellow	Barbarea vulgaris	H
Rosarypea	Abrus precatorius	H
Rush	Juncus spp.	H
Ryegrass	Lolium spp.	H
Shepherd's purse	Capsella bursa-pastoris	M-H
Sida, prickly	Sida spinosa	H
Smartweed	Polygonum spp.	H
Sorrel	Rumex spp.	M
Sowthistle, annual	Sonchus oleracea	H
Spanish needles	Bidens bipinnata	H
Speedwell	Veronica spp.	M
Spurge	Euphorbia spp.	H
Spurry, corn	Spergula arvensis	H
Spurry, petty	Euphorbia peplus	H
St. Johnswort	Hypericum spp.	H
Stargrass	Cynodon spp.	H
Stonecrop	Sedum spp.	M
Strangler vine	Morrenia odorata	H
Strawberry, wild	Fragaria virginiana	H
Teaweed	Sida spinosa	H
Thistle	Cirsium spp.	H
Thistle, Russian	Salsola acanthium	H
Timothy	Phleum pretense	H
Vetch	Vicia spp.	M
Velvetgrass	Holcis spp.	H
Wiregrass	Aristida stricta	H
Witchgrass	Panicum capillare	H
Woodsorrel, yellow	Oxalis stricta	H
Woolgrass	Scirpus cyperinus	H
Yarrow, common	Achillea millefolium	H

H = Highly Susceptible
M = Moderately Susceptible

USE RATES AND RECOMMENDATIONS BY SITE

USE SITE	RATES, RECOMMENDATIONS & RESTRICTIONS
Cottonwood / Poplar Trees In plantations and stoolbeds grown for wood and pulp production	Apply 1.4 to 2.8 gals. per acre. Use is limited to the desert areas in Oregon and Washington, defined as 15 miles from the Columbia river in the counties of Walla Walla, Franklin and Benton in Washington and Umatilla and Morrow counties in Oregon.
Woody Ornamentals In nurseries, landscape plantings, hedgerows, shelterbelts	Apply 1.4 to 4.3 gals. per acre. Apply only around well established plants, and not within 6 months of transplanting.Avoid use around shallow rooted plants, particularly in areas where soil is sandy. Do not apply around the following sensitive species if established less than 2 years: -Elderberry (Sambucus spp.) -Holly (Ilex spp.) -Conifers - all types -Dogwood (Cornus spp.) -Rhododendron (Rhododendron spp.) -Serviceberry (Amelanchier spp.) -Snowberry (Symphoricarpos spp.) -Willow (Salix spp.)
Non-Crop Areas In and around areas such as, but not limited to – airports, buildings, structures, roadways / shoulders, railroads, rights of way, industrial sites, recreational areas, parking lots, military installations, driveways, walkways, fencerows, under containerized nursery stock	Stand alone treatment – Apply 1.4 to 5.7 gals. per acre. Tank mixtures with other pre- and postemergence herbicides registered for use in non-crop areas may provide a broader spectrum of weed control. Apply Casoron CS at 1.4 to 5.7 gals. per acre in a tank mix with products containing the following active ingredients and other non-crop labeled herbicides: -Aminopyralid -Bromacil -Carfentrazone -Chlorpyralid -Chlorsulfuron -Dicamba -Diuron -Flumioxazin -Glyphosate -Hexazinone -Imazapic -Imazapyr -Metsulfuron methyl -Norfurazon -Phenoxy acids (2,4-D and others) -Oryzalin -Pendimethalin -Pramitol -Picloram -Prodiamine -Pyraflufen-ethyl -Simizine -Sulfentrazone -Sulfometuron methyl -Tebuthiuron -Triclopyr
Under Asphalt	Apply 5.7 to 8.6 gal. per acre (17 – 25 fl.ozs./ 1000 sq.ft.) Apply after final grade is achieved. Cover treated area with asphalt as soon as possible. For re-surfacing work, any existing weeds should be sprayed with a contact active translocating herbicide in addition to the Casoron CS application.
Under Vinyl Pool liners	Apply 8.6 gals per acre (25 fl.ozs./1000 sq.ft.) Apply after final grading is achieved, then water in with a fine mist. After pool installation is completed, 12 to 18 inches of perimeter should be cleaned of vegetation and the soil treated at a rate of 21 fl.ozs. per 1000 sq.ft. It is recommended that the perimeter be treated annually.

IMPORTANT NOTICE—Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.