

67760-98

04/18/2013

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Carrie M. Tackema
Cheminova Inc.
One Park Drive, Suite 150
P.O. Box 110566
Research Triangle Park, NC 27709

APR 18 2013

Subject: Notification; Per PR-Notice 98-10
CHI-Chlorsul NC-75 Herbicide
EPA Reg. No. 67760-98
Date Submitted: April 15, 2013

Dear Ms. Tackema:

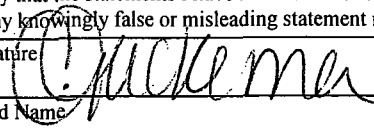
The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated April 15, 2013 for the product referenced above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

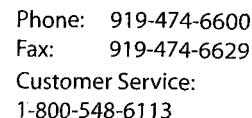
If you have any questions regarding this letter, please contact me at (703) 306-0415 or davis.kable@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis", written over a horizontal line.

Kable Bo Davis
Product Manager 25
Herbicide Branch
Registration Division (7505P)

EPA United States Environmental Protection Agency Washington, DC 20460		<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
Application for Pesticide - Section 1			
1. Company/Product Number 67760-98		2. EPA Product Manager KB Davis	
4. Company/Product (Name) CHI-Chlorsul NC-75 Herbicide		3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted	
5. Name and Address of Applicant (Include ZIP Code) Cheminova Inc. One Park Drive, Suite 150 P.O. Box 110566 Research Triangle Park, NC 27709		6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(E)(i), if any product is similar or identical in composition and labeling to: EPA Reg. No. <u>352-653; 81927-43</u> Product Name <u>DuPont Glean XP; Alligare Chlorsulfuron 75</u>	
<input checked="" type="checkbox"/> Check if this is a new address			
Section - II			
<input type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.		<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application <input type="checkbox"/> Other - Explain below	
Explanation: Use additional page(s) if necessary. (For Section I and Section II.)		NOTIFICATION APR 18 2013	
Notification per PRN 98-10			
<p>This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146 and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formulation for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146 and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.</p>			
*Contact: Carrie M. Tackema: carrie.tackema@cheminova.com or fax: 919-474-6628			
Section - III			
1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No *Certification must be submitted	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt. No. per container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Package wgt. No. per container	2. Type of Container <input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input checked="" type="checkbox"/> Paper <input checked="" type="checkbox"/> Other (Specify) - fiber drums or sacks
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 10 oz. - bulk	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled			
Section - IV			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)			
Name Carrie M. Tackema		Title Regulatory Affairs Manager	
		Telephone No. (Include Area Code) 919-474-6617	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Affairs Manager	
4. Typed Name Carrie M. Tackema		5. Date April 15, 2013	



Carrie M. Tackema
Regulatory Affairs Manager
Enclosure(s)

Highlighted w/ 4/22
Changes

CHI-CHLORSUL NC-75

Herbicide

ACTIVE INGREDIENT:

Chlorsulfuron 2-Chloro-N-[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)aminocarbonyl]benzenesulfonamide

Other Ingredients:

Total:

75.0%
25.0%
100.0%

EPA Reg. No. 67760-98

EPA EST NO.:

KEEP OUT OF REACH OF CHILDREN
CAUTION

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.)

**IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE,
DAY OR NIGHT, 1-866-303-6950**

Read the entire label before using this product.

Use only according to label instructions.

Read the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES before buying or using.

If terms are not acceptable, return product unopened without delay.

SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS

NOTIFICATION

APR 18 2013

Manufactured for:
CHEMINOVA INC.
One Park Drive, Suite 150
P.O. Box 110566
Research Triangle Park, NC 27709
www.cheminova.us.com

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> -Call a poison control center or doctor immediately for treatment advice. -Have person sip a glass of water if able to swallow. -Do not induce vomiting unless told to by a poison control center or doctor. -Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> -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.
Have a product container or label with you when calling a poison control center or doctor, or going for treatment. In case of emergency call toll free 1-866-303-6950.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks.

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

When handlers use closed systems or 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.

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 such as a spill or equipment break-down.

User Safety Recommendations:

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

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 by cleaning of equipment or disposing of equipment washwaters or wastes.

PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at label rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

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 may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

CHI-CHLORSUL NC-75 should be used only in accordance with instructions on this label or in separate published Cheminova instructions.

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

PRODUCT INFORMATION

CHI-CHLORSUL NC-75 contains the active ingredient chlorsulfuron which is a herbicide used for control of many broadleaf weeds found in pastures, ranges, Conservation Reserve Program (CRP) lands, and non-crop industrial sites (including industrial (unimproved) turf and for growth suppression and seedhead inhibition of established desirable grasses). Non-crop industrial sites include airports, fence rows, government and private lands, military installations, petroleum tank farms, pipeline and utility rights-of-way, plant sites, pumping installations, railroads, roadsides and associated rights-of-way, and storage areas.

Some of these sites may contain temporary pools of surface water as a result of site management, CHI-CHLORSUL NC-75 may be used to treat intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. In addition, CHI-CHLORSUL NC-75 may be applied to bogs, marshes, and swamps after water has receded and to seasonally dry flood deltas. DO NOT make applications to natural or man-made bodies of water such as canals, lakes, ponds, reservoirs, and streams.

Both preemergent and postemergent applications of CHI-CHLORSUL NC-75 will control weeds although several factors (including use rate, weed growth stage at the time of application, and post-application weather conditions) will affect the range of weeds controlled and the length of residual activity. **Annual weeds** are best controlled from application of CHI-CHLORSUL NC-75 in the early stages of weed development. **Perennial weeds** are best controlled from application of CHI-CHLORSUL NC-75 when weeds are in the bud to bloom or fall rosette stage.

CHI-CHLORSUL NC-75 is a dry flowable that is mixed in water and applied as a spray.

CHI-CHLORSUL NC-75 is noncorrosive, nonflammable, nonvolatile and does not freeze.

TANK MIXTURES

CHI-CHLORSUL NC-75 may be applied with other herbicides and/or adjuvants registered for use in non-crop sites. For application method and other use specifications, use the most restrictive directions for the intended combination. Do not tank mix CHI-CHLORSUL NC-75 with HYVAR® X-L herbicide.

Always perform a jar test to insure the compatibility of products to be used in tank mixture with CHI-CHLORSUL NC-75. Use a clear jar with lid and mix the tank mix ingredients in their relative proportions. The tank mixture is compatible if these materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for ½ hour or, if separation occurs, should readily mix if agitated. An incompatible mixture is indicated by separation into distinct layers which do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film on the jar.

SPRAY ADJUVANTS

To improve postemergence weed control, a high quality spray adjuvant should be added at the manufacturer's recommended use rate. Do not use LI-700 or any acidifying spray adjuvants with CHI-CHLORSUL NC-75.

GRAZING/HAYING

There are no grazing or hay harvest restrictions for any livestock, including lactating animals, with application rates up to 1 1/3 ounces per acre of CHI-CHLORSUL NC-75. No enclosure is required for any animals.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

CHI-CHLORSUL NC-75 is absorbed by both the roots and foliage of plants, rapidly inhibiting the growth of susceptible weeds. Two to three weeks after application to weeds, leaf growth slows, and the growing points turn reddish-purple. Within four to six weeks of application, leaf veins and leaves become discolored, and the growing points subsequently die.

Warm, moist conditions following treatment enhance the effectiveness of CHI-CHLORSUL NC-75 since moisture carries CHI-CHLORSUL NC-75 into weed roots, preventing roots from developing. Cold, dry conditions delay the activity of CHI-CHLORSUL NC-75. Weeds hardened off by cold weather or drought stress are less susceptible to CHI-CHLORSUL NC-75.

CHI-CHLORSUL NC-75 is safe to labeled grasses under normal conditions. However, grasses that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices may be injured by applications of CHI-CHLORSUL NC-75. In addition, different species of grass may be sensitive to treatment with CHI-CHLORSUL NC-75 under otherwise normal conditions. Application of CHI-CHLORSUL NC-75 to these species may result in injury.

RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a

different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to use tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your consultant, applicator, and/or Cheminova representative for specific alternative herbicide recommendations available in your area.

INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pests in your area.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

PRODUCT DISPOSAL:

Nonrefillable containers equal to or less than 5 gallons:

Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ 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.

Nonrefillable containers greater than 5 gallons:

Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Repeat this procedure two more times.

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 4 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, such as plants, soil, or water, is:

- Coveralls.
- Chemical Resistant Gloves Category A (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all ≥14 mils.
- Shoes plus socks.

NON-AGRICULTURAL USES

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.

Use on noncrop sites is not within the scope of the Worker Protection Standard.

Do not enter or allow entry into treated areas until sprays have dried.

NON-CROP SITES

Application Information

CHI-CHLORSUL NC-75 is used for weed control on private, public, and military lands as follows: nonagricultural areas (airports, highway, railroad and utility rights-of-way, sewage disposal areas, etc.); industrial sites – outdoor (such as lumberyards, pipeline and tank farms, etc.) including grazed areas on these sites.

Application Timing, Rates and Weeds Controlled

Apply CHI-CHLORSUL NC-75 as a preemergent or early postemergent spray when annual weeds are actively germinating or growing. For control of perennial weeds with CHI-CHLORSUL NC-75 alone, best results are obtained when weeds are treated in the bud to bloom or fall rosette stage.

AGRICULTURAL USES

PASTURE, RANGE, AND CONSERVATION RESERVE PROGRAM (CRP)

Directions for Application: To control or suppress weeds found in permanent (non-rotational) pastures, range, and CRP lands, apply CHI-CHLORSUL NC-75 at the rates listed in the table below and follow all directions for use on this label. Apply by ground or air (fixed wing aircraft or helicopter) equipment. Up to 1/3 ounces CHI-CHLORSUL NC-75 may be applied only as a spot treatment for specific grasses only if the resulting injury and possible loss of forage is acceptable.

Timing: Optimum results are seen when *perennial* weeds are treated in the bud to bloom or the fall rosette stage and when *annual* weeds are treated at early growth stages.

Weeds: Refer to the section *Weeds Controlled by CHI-CHLORSUL NC-75*.

Restrictions: Do not apply more than 1 1/3 ounce of CHI-CHLORSUL NC-75 per acre per year.

NOTE: No hay harvest restrictions or grazing restrictions for livestock (including lactating animals) apply when CHI-CHLORSUL NC-75 is applied at up to 1 1/3 ounces per acre. Animals do not need to be enclosed.

Precautions:

- Severe stunting and injury will occur from application of CHI-CHLORSUL NC-75 to sensitive broadleaf forage species (such as clover and alfalfa).
- Injury to forage grasses which are under stress (due to drought, insects, disease, cold temperature or poor fertility) may occur from CHI-CHLORSUL NC-75 applications.
- Do not apply CHI-CHLORSUL NC-75 to forage grasses unless well-established or the newly emerged seedlings of sensitive forage grasses will be injured.
- Tolerance of different varieties and species of forage grasses to CHI-CHLORSUL NC-75 may vary. Before using CHI-CHLORSUL NC-75 on certain grass for the first time, only apply CHI-CHLORSUL NC-75 to a small area. Once it has been determined that injury will not occur, larger areas may be treated in the next season. Examples of varietal sensitivity to CHI-CHLORSUL NC-75 include:
 - abortion or suppression of seedheads by some cool season grasses if CHI-CHLORSUL NC-75 is applied before the initiation of flowering
 - possible severe injury in perennial and Italian ryegrasses
 - temporary stunting or yellowing of fescues

RATES FOR CONTROL OR SUPPRESSION OF WEEDS IN FORAGE GRASSES

1/4 to 1/2 ounce per acre

Bluestems (big, little, plains, sand, ww spar)	<i>Andropogon spp.</i>
Buffalograss	<i>Buchloe dactyloides</i>
Fescue, tall, Kentucky, hard, creeping†	<i>Festuca spp.</i>
Green needlegrasses	<i>Stipa viridula</i>
Indiangrass	<i>Sorghastrum nutans</i>
Kleingrass	<i>Panicum coloratum</i>
Lovegrass	<i>Eragrostis spp.</i>
(sand, weeping)	
Switchgrass	<i>Panicum virgatum</i>
Wildrye grasses	<i>Elymus spp.</i>

† For sensitive fescue, use the lower use rate

1/2 to 1 ounce per acre

Bahiagrass	<i>Paspalum notatum</i>
Bermudagrass	<i>Cynodon dactylon</i>
Blue gramma	<i>Bouteloua gracilis</i>
Bluegrass	<i>Poa spp.</i>
Bromegrass (meadow, smooth)	<i>Bromus spp.</i>
Orchardgrass*	<i>Dactylis glomerata</i>
Wheatgrasses (crested, intermediate, pubescent, slender, streambank, tall, thick, spike, western)	<i>Agropyron spp.</i>

*Except California

SPOT APPLICATIONS

PASTURE, RANGE AND CONSERVATION RESERVE PROGRAM (CRP): Spot applications will aid in the control of weeds in pastures, ranges, and CRP land. Apply CHI-CHLORSUL NC-75 using equipment such as back pack sprayers to deliver the spray to the foliage and stems. The height and density of weeds and type of application equipment employed will determine the application volume. Optimum results are obtained from a thorough, uniform coverage of the foliage stems. Postemergence control of weeds improves from the addition of a spray adjuvant (0.25% volume, or use the manufacturer's labeled rate).

Mix 1 gram of CHI-CHLORSUL NC-75 and the surfactant with 1 gallon of water. Spray the weeds so that the entire surface of the weeds become wet. At this rate, approximately 35 gallons of solution will treat 1 acre.

NON-CROP SITES

Mix 1-3 ounces of CHI-CHLORSUL NC-75 with 100 gallons of water. Do not apply more than 300 gallons of the CHI-CHLORSUL NC-75 at the 1 ounce spray mix rate per acre, and no more than 100 gallons of the CHI-CHLORSUL NC-75 of the 3 ounces spray mix rate per acre.

SPRAY DRIFT CONTROL AGENTS

Include a spray drift control agent with the CHI-CHLORSUL NC-75 tank mix to reduce the chance of drift. Follow the manufacturer's labeled rate for the drift control agent.

CROP ROTATION

Do not treat all acres (pastures, rangeland or CRP) at the same time with the CHI-CHLORSUL NC-75 if rotational crop plantback flexibility is desired.

NON-AGRICULTURAL USES

NON-CROP SITES – INDUSTRIAL AREAS

To control annual, biennial and perennial broadleaf weeds found in non-crop, industrial areas (airports, fence rows, government and private lands, military installations, petroleum tank farms, pipeline and utility rights-of-way, plant sites, pumping installations, railroads, roadsides and associated rights-of-way, and storage areas), apply CHI-CHLORSUL NC-75 at the rates listed in the sections below and follow all directions for use on this label. Apply by ground equipment unless directed otherwise by Special Local Need or Supplemental labeling. Make preemergent or early postemergent spray applications of CHI-CHLORSUL NC-75 to actively germinating or growing **annual weeds**. **Perennial weeds** are best controlled from application of CHI-CHLORSUL NC-75 when weeds are in the bud to bloom or fall rosette stage.

INDUSTRIAL TURF

(Unimproved Only)

Directions for Application:

To control weeds found in industrial turf (unimproved), on roadside or non-crop sites, apply CHI-CHLORSUL NC-75 at the rates listed in the table below and follow all directions for use on this label. The higher CHI-CHLORSUL NC-75 rates will control weeds for longer periods of time compared with the lower CHI-CHLORSUL NC-75 rates. Temporary chlorosis of desirable grasses may occur when CHI-CHLORSUL NC-75 is applied at the higher rate or in combination with a surfactant.

Application Timing

Apply CHI-CHLORSUL NC-75 when desirable grasses have become well-established to avoid any top kill or stand reduction. For best results, treat turf at green-up.

WEEDS: Refer to the section **Weeds Controlled by CHI-CHLORSUL NC-75.**

½ ounce CHI-CHLORSUL NC-75 + ½ - 1 pt "Embark" 2S (PNW Only)

Fescue	<i>Festuca spp</i>
Annual bluegrass	<i>Poa annua</i>
Halogeton	<i>Halogeton glomeratus</i>
Perennial ryegrass	<i>Lolium perenne</i>
Smooth brome	<i>Bromus inermis</i>
Orchardgrass	<i>Dactylis glomerata</i>
Reed canarygrass	<i>Phalaris arundinacea</i>

USE PRECAUTIONS (Industrial Turf Only)

- Do not use CHI-CHLORSUL NC-75 in a tank mix with "Embark" on bahiagrass turf or turf that is under stress from drought, insects, disease, cold temperature, or poor fertility, as injury may result.
- Do not apply CHI-CHLORSUL NC-75 to turf less than 1 year old.
- Grass seed may be planted in treated areas six months after treatment, cultivation is recommended.
- For broadcast applications, do not exceed ½ ounce CHI-CHLORSUL NC-75 per acre within a 12-month period. For those weeds listed under the 1 to 3 ounce application rate in the Non-crop, Industrial Sites section of this label, spot treatment (at that rate) is recommended. Do not make broadcast applications to turf at 1 to 3 ounces as this may cause excessive turf injury.

WEEDS CONTROLLED

CHI-CHLORSUL NC-75 effectively controls the following weeds when applied at the use rates shown. When applied at lower rates, CHI-CHLORSUL NC-75 provides short term control of weeds listed; when applied at higher rates, weed control is increased.

¼ to ½ ounce per acre

Annual sowthistle	<i>Sonchus oleraceus</i>	
Blue mustard	<i>Chorispora tenella</i>	
Common chickweed	<i>Stellaria media</i>	
Common speedwell	<i>Veronica officinalis</i>	
Common spikeweed**	<i>Hemizonia pungens</i>	
Conical catchfly**	<i>Silene conoidea</i>	
Cutleaf eveningprimrose**	<i>Oenothera laciniosa</i>	
Fiddleneck (tarweed)**	<i>Amsinckia lycopoides</i>	
Field pennycress	<i>Thlaspi arvense</i>	cccc
Flixweed	<i>Descurainia Sophia</i>	cccc
Hempnettle**	<i>Galeopsis spp.</i>	cccc
Henbit	<i>Lamium amplexicaule</i>	cccc
London rocket**	<i>Sisymbrium irio</i>	cccc
Mayweed**	<i>Anthemis cotula</i>	cccc
Miner's lettuce**	<i>Montia perfoliata</i>	cccc
Pineapple-weed**	<i>Matricaria matricarioides</i>	cccc
Prostrate pigweed	<i>Amaranthus blitoides</i>	cccc
Redroot pigweed	<i>Amaranthus retroflexus</i>	cccc
Shepherd's purse**	<i>Capsella bursa-pastoris</i>	cccc
Smooth pigweed**	<i>Amaranthus chlorostachys</i>	cccc
Treacle mustard**	<i>Erysimum spp.</i>	cccc
Tumble mustard (Jim Hill)	<i>Sisymbrium altissimum</i>	cccc
Wild mustard	<i>Sinapis arvensis</i>	cccc

** Except California.

½ - 1 ounce per acre

Bouncingbet	<i>Saponaria officinalis</i>
Bur beakchervil**	<i>Anthriscus caucalis</i>
Buttercup	<i>Ranunculus spp.</i>

* Partial control only.
 ** Except California.
 † Prebloom to bloom and fall rosette.

1 to 3 ounces per acre

Aster spp
Galium spp.
Brassica nigra
Cirsium vulgare
Medicago spp.
Cirsium arvense
Potentilla canadensis
Malva neglecta
Verbascum thapsus
Ambrosia elatior
Tanacetum vulgare
Dipsacus fullonum
Achillea millefolium
Spergula arvensis
Vaccaria pyramidata
Rumex crispus
Isatis tinctoria
Matricaria maritima
Setaria spp
Equisetum spp.
Cynoglossum officinale
Lolium multiflorum
Conyza canadensis
Lepidium spp.
Lepidium latifolium
Conium maculatum
Polygonum aviculare
Tribulus terrestris
Trifolium pratense
Acroptilon repens
Onopordum acanthium
Equisetum hyemale
Falcaria vulgaris
Atriplex patula
Descurainia pinnata
Senecio jacobaeae
Trifolium repens
Daucus carota
Allium vineale
Centaurea solstitialis

- * Partial control only.
- ** Except California.
- † Prebloom to bloom and fall rosette.

SPECIFIC WEED PROBLEMS

Dalmation Toadflax (*Linaria genistifolia*): Apply two to three ounces of CHI-CHLORSUL NC-75 per acre as a high volume foliar spray using a minimum of 24 gallons of water per acre. Use of a surfactant, as directed on this label, is recommended. Fall applications of CHI-CHLORSUL NC-75 appear to provide the most consistent control.

Yellow Toadflax (*Linaria vulgaris*): Apply a minimum of 1.5 ounces of CHI-CHLORSUL NC-75 per acre.

Kochia, Russian Thistle, and Prickly Lettuce: Tank mix CHI-CHLORSUL NC-75 with herbicides with different modes of action (such as 2,4-D plus dicamba), and apply postemergence before weeds form mature seeds.

Yellow Starthistle (*Centaurea solstitialis*): Apply CHI-CHLORSUL NC-75 at ½ to 3 ounces per acre in combination with the labeled rates of other herbicides registered for this use (such as, "Transline", "Tordon" 22K or 2,4-D). For application method and other use instructions, use the most restrictive directions for the intended use. To improve postemergence control, a spray adjuvant should be added at the manufacturer's recommended use rate.

When applied at lower rates, CHI-CHLORSUL NC-75 provides short term control; when applied at higher rates, weed control spectrum and residual is increased.

Rainfall is needed following the application for activation of CHI-CHLORSUL NC-75 to provide the preemergence control of yellow starthistle. Applications should be made from early emergence to bolting stage of growth.

GRASS REPLANT INTERVALS

Following an application of CHI-CHLORSUL NC-75 to non-crop areas, the treated sites may be replanted with various species of grasses at the minimum intervals recommended below.

For soils with a pH of 7.5 or less observe the following replant intervals:

CHI-CHLORSUL NC-75

Replant Interval Species	Rate oz/acre	(Months)	
Brome, meadow <i>Bromus erectus</i>	½-1 1-2	1 2	c c c c c
Brome, smooth <i>Bromus inermis</i>	½-1 1-2	2 4	c c c c c
Fescue, alta/tall <i>Festuca arundinacea</i>	½ 1 2	2 3 5	c c c c c
Fescue, sheep <i>Festuca ovina</i>	½-1 1-2	2 4	c c c c c
Foxtail, meadow <i>Alopecurus pratensis</i>	½ 1 2	3 4 6	c c c c c
Needlegrass, green <i>Stipa viridula</i>	½-2	1	c c c c c
Orchardgrass <i>Dactylis glomerata</i>	½ 1-2	2 3	
Russian wildrye <i>Elymus spp.</i>	½-2	1	
Switchgrass <i>Panicum virgatum</i>	½-2	3	
Timothy	½	2	

<i>Phelum pratense</i>	1	4
	2	6
Wheatgrass, western	1/2	1
<i>Agropyron smithii</i>	1	2
	2	4

For soils having a pH of 7.5 and greater observe the following minimum replant intervals:

CHI-CHLORSUL NC-75

Replant Interval Species	Rate oz/acre	(Months)
Alkali sacaton	1/2	1
<i>Sporobolus airoides</i>	1	3
	2	>3
Bluestern, Big	1/2	3
<i>Andropogon gerardii</i>		
Brome, Mountain	1/2	1
<i>Bromus marginatus</i>	1	2
	2	>3
Gramma, Blue	1/2	1
<i>Bouteloua gracilis</i>	1	2
	2	>3
Gramma, Sideoats	1-2	>3
<i>Bouteloua curtipendula</i>		
Switchgrass	1-2	>3
<i>Panicum virgatum</i>		
Wheatgrass, Bluebunch	1 1/3	1
<i>Agropyron, spicatum</i>	1 1/3	1
Wheatgrass, Crested	2/3	1
<i>Agropyron cristatum</i>		
Wheatgrass, intermediate	1 1/3	1
<i>Agropyron intermedium</i>		
Wheatgrass, Slender	1 1/3	1
<i>Elymus trachycaulum</i>		
Wheatgrass, Siberian	1 1/3	1
<i>Agropyron fragile</i>		
Wheatgrass, Streambank	1 1/3	1
<i>Agropyron riparium</i>		
Wheatgrass, Thickspike	1/2-2	1
<i>Agropyron dasystachyum</i>		
Wheatgrass, Western	1/2	1
<i>Agropyron smithii</i>	1	2
	2	4

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c c c c c

The stated minimum intervals are for applications made in the spring to early summer. Because CHI-CHLORSUL NC-75 degradation is slowed by cold or frozen soils, applications made in the late summer or early fall should consider the intervals as beginning in the spring following treatment.

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c c c c c

Testing has indicated that there is a considerable variation in response among the species of grasses when seeded onto areas treated with CHI-CHLORSUL NC-75. If species other than those listed above are to be planted into areas treated with CHI-CHLORSUL NC-75 a field bioassay should be performed, or previous experience may be used to determine the feasibility of replanting treated sites.

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c c c c c
c c c c c
c c c c c

ADDITIONAL USE INSTRUCTIONS

SPRAY EQUIPMENT

For non-crop sites, apply CHI-CHLORSUL NC-75 using ground equipment only, or as otherwise directed by Supplemental or Special Local Need Labeling.

Equipment used to apply CHI-CHLORSUL NC-75 should not be used for applications to crops following a CHI-CHLORSUL NC-75 application, as low rates of CHI-CHLORSUL NC-75 may kill or severely injure most crops.

For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment before application. Select a spray volume and delivery system that will ensure a uniform spray pattern and thorough coverage of weed pests. Use higher spray volumes to obtain better coverage when the weed canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, slowing, or stopping to avoid crop injury.

Do not make applications using equipment and/or spray volumes or under weather conditions that might cause spray drift onto nontarget sites. For additional information on spray drift, refer to the Spray Drift Management section of the label.

Continuous agitation is required to keep CHI-CHLORSUL NC-75 in suspension.

NOTE:

Using ammonia solution will help solubilize the CHI-CHLORSUL NC-75. This reduces the need to agitate the tank mixture to prevent settling out. The product will usually remain stable in this solution for a maximum of one to three days under normal conditions. A pH range of 7 to 8 is ideal for this spray-mix solution. Mixing and spraying the product immediately will provide the best results.

Mix one fluid ounce (2 tablespoons) of ammonia solution (3% active) with every ounce (by weight) of CHI-CHLORSUL NC-75 used in the spray tank.

GROUND APPLICATION

BROADCAST APPLICATION

Use 20 to 40 GPA when applying CHI-CHLORSUL NC-75 as a broadcast application. Be sure to calibrate sprayers before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern. When spraying industrial turf, avoid overlapping and shut off spray booms while starting, turning, slowing, or stopping to avoid injury to desired species.

HIGH VOLUME HANDGUN APPLICATION

When making applications of CHI-CHLORSUL NC-75 with a handgun, apply at up to 100 gallons of spray solution per acre (GPA). Mix CHI-CHLORSUL NC-75 at 1 to 3 ounces per acre plus an adjuvant. Add a foam reducing agent if needed. Use the higher rate for hard to control species but do not apply more than 3 ounces per acre. Apply evenly to ensure thorough coverage of the site and weed pest(s) to be treated.

INVERT SPRAY APPLICATION

Apply the high viscosity invert solution as a total volume of 10 to 40 gallons per acre. Mix $\frac{1}{4}$ to 3 ounces of CHI-CHLORSUL NC-75 per acre in the water phase of the invert solution. Refer to the Weeds Controlled sections of this label for selecting the appropriate use rate for the target weeds. Follow all use directions and cautionary statements appearing on the labels of the inverting oils and additives or listed in the operators manual of the inverting equipment by its manufacturer.

AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximize coverage.

Use a minimum of 3 GPA.

When applying CHI-CHLORSUL NC-75 by air in areas adjacent to sensitive crops, use solid stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields. See the Spray Drift Management section of this label.

BIOASSAY

A field bioassay must be completed before rotating to grass species/variety not listed in this label.

To conduct a field bioassay, grow test strips of the grass(es) you plan to grow the following year in fields previously treated with CHI-CHLORSUL NC-75. Grass response to the bioassay will indicate whether or not to rotate to the grass(es) grown in the test strip.

If a field bioassay is planned, check with your local supplier or Cheminova representative for information detailing the field bioassay procedure.

IMPORTANT PRECAUTIONS

Injury to or loss of desirable trees or other plants may result from the following:

- Do not apply CHI-CHLORSUL NC-75 directly to moving or standing bodies of water. Do not allow CHI-CHLORSUL NC-75 to drift or move or be washed into moving or standing bodies of water. This is especially true for irrigation waters as small amounts of CHI-CHLORSUL NC-75 could severely injure or kill crops.
- If equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Treatment of powdery, dry soil and light, sandy soils when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown or moved onto land used to produce crops. Exposure to CHI-CHLORSUL NC-75 may injure or kill most crops (except small grains). Injury may be more severe when crops are irrigated.
- Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of CHI-CHLORSUL NC-75. Do not treat frozen soil. Treated soil should be left undisturbed to reduce the potential for CHI-CHLORSUL NC-75 movement by soil erosion due to wind or water.
- When CHI-CHLORSUL NC-75 is applied at rates of 1 1/3 ounce/a and less there is no restriction on grazing or haying of forage grasses.
- Grass species or varieties may differ in their response to various herbicides. Cheminova recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of CHI-CHLORSUL NC-75 to a small area. Components in a grass seed mixture will vary in tolerance to CHI-CHLORSUL NC-75 so the final stand may not reflect the seed ratio.

- Under certain conditions such as heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after CHI-CHLORSUL NC-75 application, temporary discoloration and/or grass injury may occur. CHI-CHLORSUL NC-75 should not be applied to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soils, disease, or insect damage, as grass injury may result. Severe winter stress, drought, disease, or insect damage before or following application of CHI-CHLORSUL NC-75 may also result in grass injury.
- Applications of CHI-CHLORSUL NC-75 to rights-of-way undersown with legumes may cause injury to the legumes. Legumes in a seeding mixture may be severely injured or killed following an application of CHI-CHLORSUL NC-75.

USE RESTRICTIONS

- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- Do not apply through any type of irrigation system.
- Do not use this product in the following counties of Colorado: Saguache, Rio Grande, Alamosa, Costilla, and Conejos.

MIXING INSTRUCTIONS

1. Fill the tank $\frac{1}{4}$ to $\frac{1}{3}$ full of water.
2. While agitating, add the required amount of CHI-CHLORSUL NC-75.
3. Continue agitation until CHI-CHLORSUL NC-75 is fully dispersed, at least 5 minutes.
4. Once the CHI-CHLORSUL NC-75 is fully dispersed, maintain agitation and continue filling tank with water. CHI-CHLORSUL NC-75 should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) and then add the necessary volume of spray adjuvants. Always add spray adjuvants last.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply CHI-CHLORSUL NC-75 spray mixture within 24 hours of mixing to avoid product degradation.
8. If CHI-CHLORSUL NC-75 and a tank mix partner are to be applied in multiple loads, pre-slurry the CHI-CHLORSUL NC-75 in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the CHI-CHLORSUL NC-75.

Do not use CHI-CHLORSUL NC-75 with spray additives that reduce the pH of the spray solution to below 5.0.

SPRAYER CLEANUP

Spray equipment must be cleaned before CHI-CHLORSUL NC-75 is sprayed. Immediately following application of CHI-CHLORSUL NC-75, follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the steps outlined in the SPRAYER CLEANUP section of this label.

AT THE END OF THE DAY

When multiple loads of CHI-CHLORSUL NC-75 are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hose flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

Thoroughly clean all mixing and spray equipment immediately following applications of CHI-CHLORSUL NC-75 as follows:

1. Drain tank; rinse interior surfaces of tank; then flush tank, boom, and hoses with clean water for a minimum of 5 minutes.
2. Fill the tank with clean water and add the cleaning solution*. Flush the boom, hoses, and nozzles with the cleaning solution. Allow them to sit for 15 minutes with agitation running, and then drain the tank.
3. Repeat Step 2.
4. Repeat Step 1.
5. Remove the nozzles and screens and clean separately. To remove traces of cleaning solution, rinse the tank thoroughly with clean water and flush through the hoses and boom.

* Use cleaning solutions such as the following:

1. One gal. ammonia (containing 3% active) per 100 gal of water.
2. "Nutra-sol" (carefully read and follow "Nutra-sol" label directions).
3. Loveland Spray Tank Cleaner (carefully read and follow Loveland Spray Tank Cleaner label directions).
4. "Tank-Cleaner" (carefully read and follow "Tank-Cleaner" label directions).

Note: This sprayer cleanup procedure is only effective for CHI-CHLORSUL NC-75 and for general uses specified under "Directions for Use". Do not use the sprayer on food crops (except wheat, barley and oats), feed crops, fine turf, ornamentals and other desirable plants.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150-200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **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 **Surface Temperature Inversions** sections of this label.

Controlling Droplet Size – General Techniques

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **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.

Controlling Droplet Size – Aircraft

- **Number of Nozzles** – use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** – Orientating nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** – Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

BOOM LENGTH AND HEIGHT

- **Boom Length (aircraft)** – The boom length must not exceed $\frac{3}{4}$ of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.
- **Boom Height (aircraft)** – Application more than 10 ft. above the canopy increases the potential for spray drift.
- **Boom Height (ground)** – Setting the boom at the lowest height which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.**

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 hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature 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 to an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates a good vertical air mixing.

ADDITIONAL USE PRECAUTIONS

SENSITIVE AREAS

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, **non-target crops**) is minimal (e.g., when wind is blowing away from the sensitive areas).

DRIFT CONTROL ADDITIVES

Drift control additives may be used with all spray equipment with the exception of controlled droplet applicators. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the label. It is recommended that drift control additives be certified by the Chemical Producers and Distributors Association (CPDA).

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.

IMPORTANT: READ BEFORE USE

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 warranty disclaimer, inherent risks of use and limitation of remedies.

